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#### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

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**ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS**

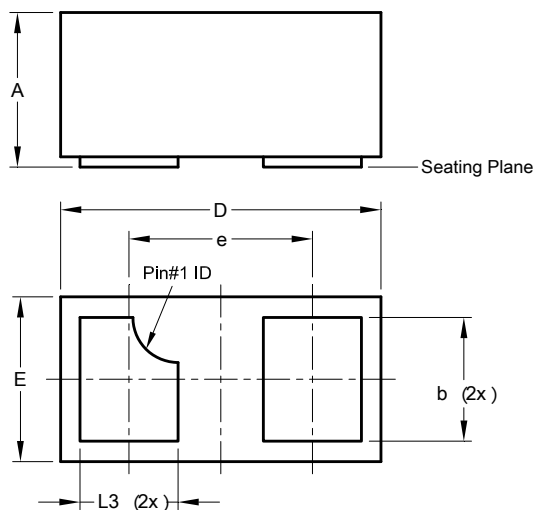
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



# SURFACE MOUNT PACKAGES

## Package Outline Dimensions

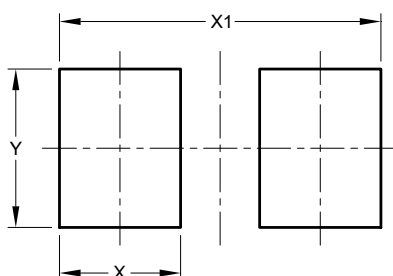
X2-DFN0603-2



X2-DFN0603-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L3	0.14	0.24	0.19
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN0603-2



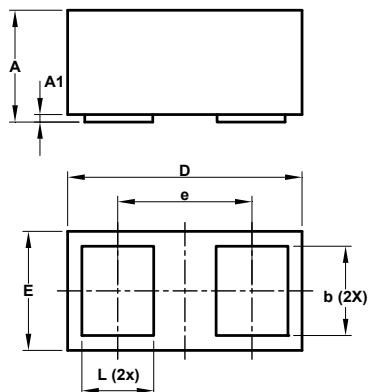
Dimensions	Value (in mm)
X	0.230
X1	0.610
Y	0.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

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## Package Outline Dimensions

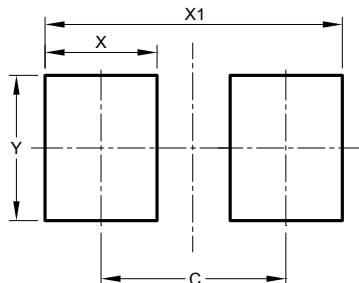
X3-DFN0603-2



X3-DFN0603-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L	0.14	0.24	0.19
All Dimensions in mm			

## Suggested Pad Layout

X3-DFN0603-2



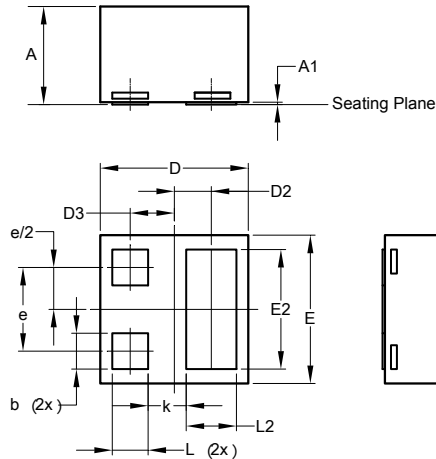
Dimensions	Value (in mm)
C	0.380
X	0.230
X1	0.610
Y	0.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

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## Package Outline Dimensions

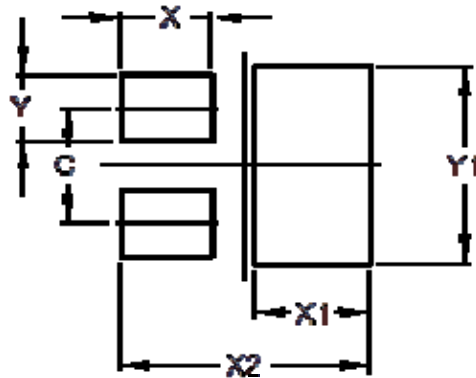
X2-DFN0606-3



X2-DFN0606-3			
Dim	Min	Max	Typ
A	0.36	0.42	0.39
A1	0	0.05	0.02
b	0.10	0.20	0.15
D	0.57	0.67	0.62
D2	0.155 BSC		
D3	0.185 BSC		
E	0.57	0.67	0.62
E2	0.40	0.60	0.50
e	0.35 BSC		
k	0.16 REF		
L	0.09	0.21	0.15
L2	0.11	0.31	0.21
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN0606-3



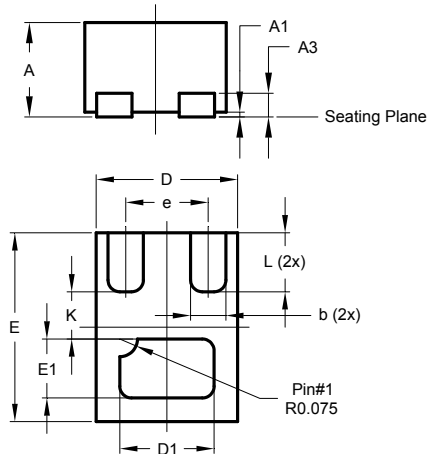
Dimensions	Value (in mm)
C	0.350
X	0.280
X1	0.350
X2	0.760
Y	0.200
Y1	0.600

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## Package Outline Dimensions

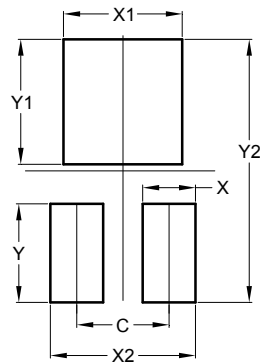
**X2-DFN0806-3**



X2-DFN0806-3			
Dim	Min	Max	Typ
A	0.375	0.40	0.39
A1	0	0.05	0.02
A3	-	-	0.10
b	0.10	0.20	0.15
D	0.55	0.65	0.60
D1	0.35	0.45	0.40
E	0.75	0.85	0.80
E1	0.20	0.30	0.25
e	-	-	0.35
K	-	-	0.20
L	0.20	0.30	0.25
All Dimensions in mm			

## Suggested Pad Layout

**X2-DFN0806-3**

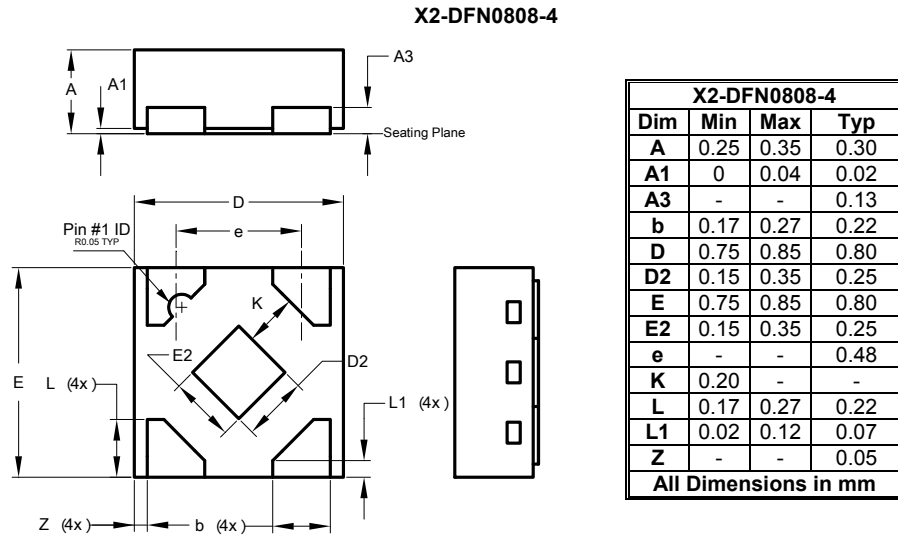


Dimensions	Value (in mm)
C	0.350
X	0.200
X1	0.450
X2	0.550
Y	0.375
Y1	0.475
Y2	1.000

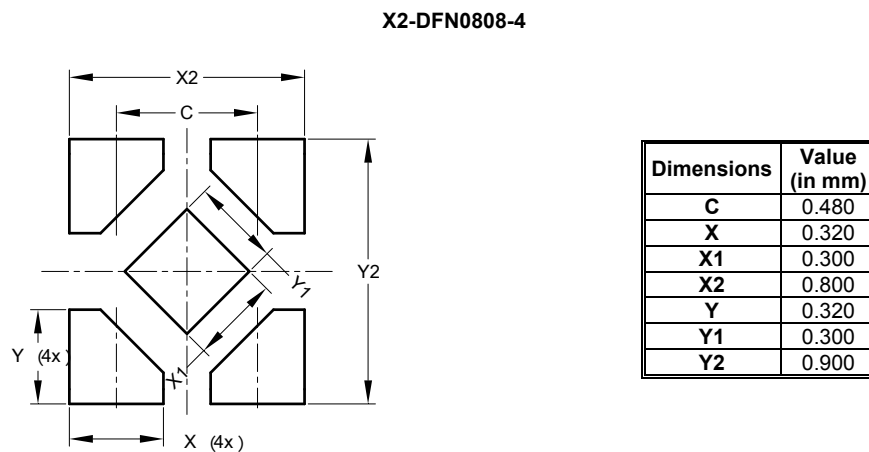
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## Package Outline Dimensions



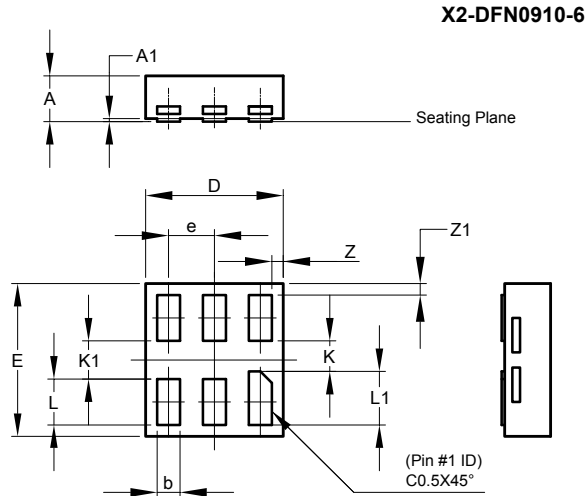
## Suggested Pad Layout



### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

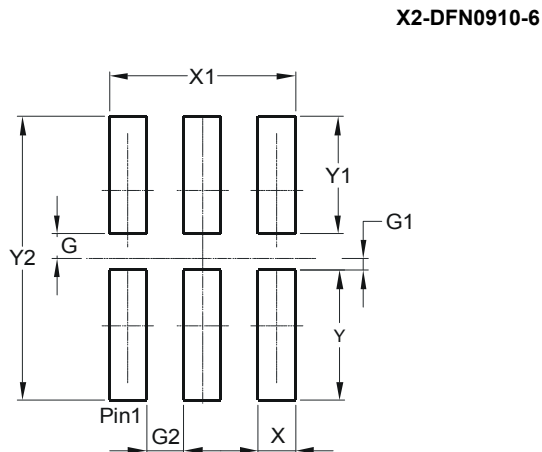
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## Package Outline Dimensions



X2-DFN0910-6			
Dim	Min	Max	Typ
A	-	0.35	0.30
A1	0	0.03	0.02
b	0.10	0.20	0.15
D	0.85	0.95	0.90
E	0.95	1.05	1.00
e	-	-	0.30
K	0.20	-	-
K1	0.25	-	-
L	0.25	0.35	0.30
L1	0.30	0.40	0.35
Z	-	-	0.075
Z1	-	-	0.075
All Dimensions in mm			

## Suggested Pad Layout

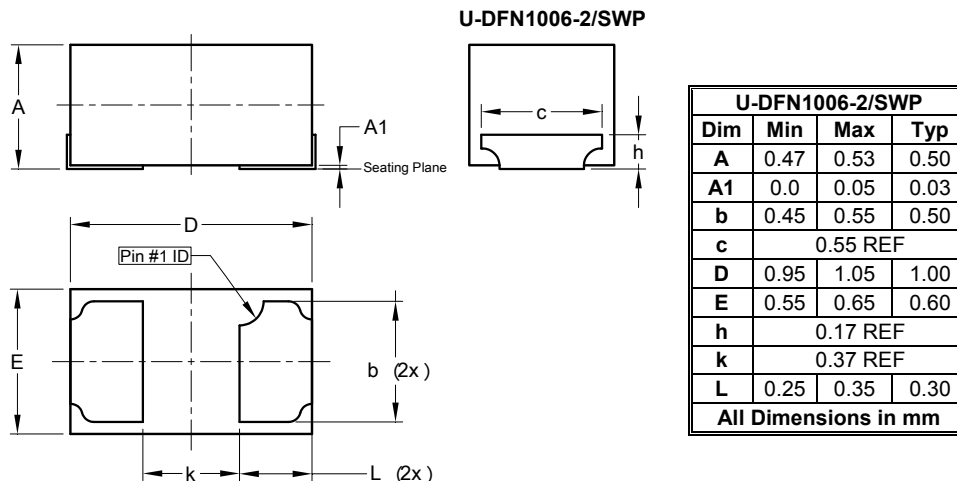


Dimensions	Value (in mm)
G	0.100
G1	0.050
G2	0.150
X	0.150
X1	0.750
Y	0.525
Y1	0.475
Y2	1.150

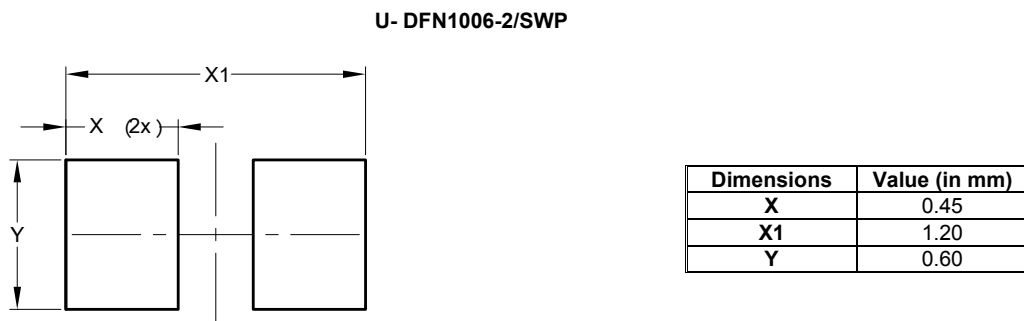
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## Package Outline Dimensions



## Suggested Pad Layout

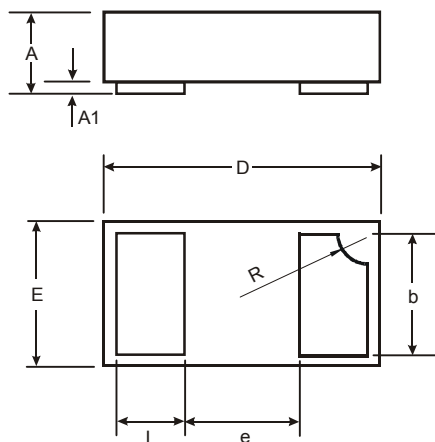


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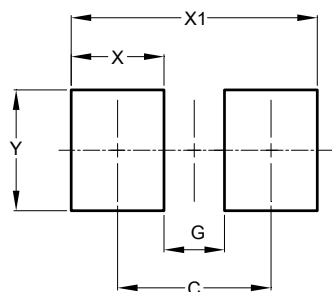
X1-DFN1006-2



X1-DFN1006-2			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.03
b	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.40
L	0.20	0.30	0.25
R	0.05	0.15	0.10
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1006-2



Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70

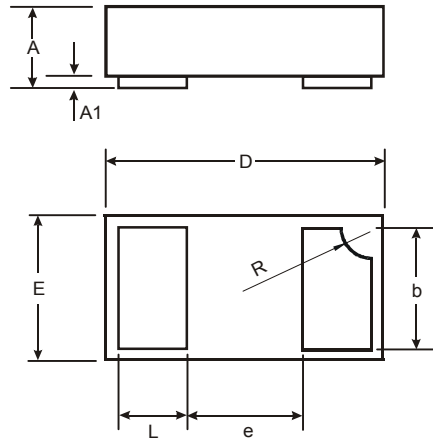
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

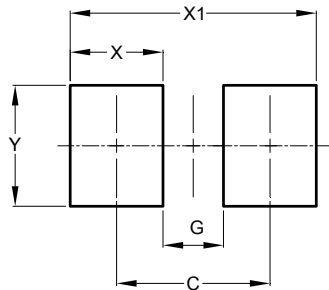
X2-DFN1006-2



X2-DFN1006-2			
Dim	Min	Max	Typ
A	0.34	0.4	0.37
A1	0	0.05	0.03
b	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.40
L	0.20	0.30	0.25
R	0.05	0.15	0.10
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN1006-2



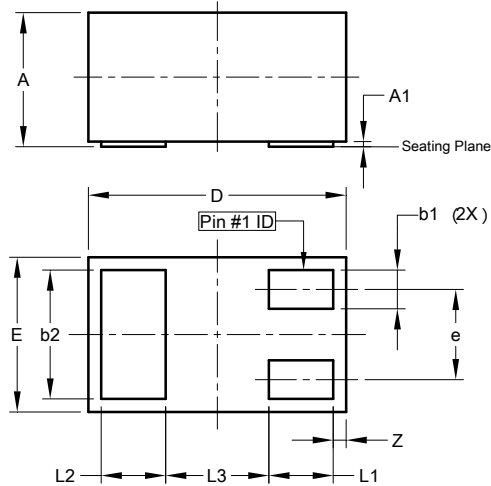
Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

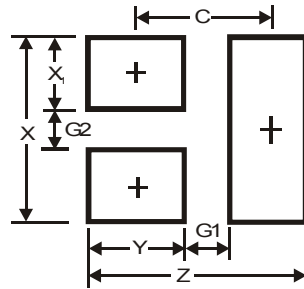
X1-DFN1006-3



X1-DFN1006-3			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.03
b1	0.10	0.20	0.15
b2	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.35
L1	0.20	0.30	0.25
L2	0.20	0.30	0.25
L3	-	-	0.40
Z	0.02	0.08	0.05
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1006-3



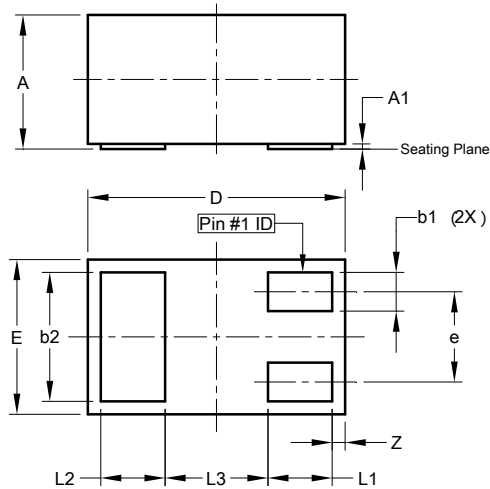
Dimensions	Value (in mm)
Z	1.1
G1	0.3
G2	0.2
X	0.7
X1	0.25
Y	0.4
C	0.7

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

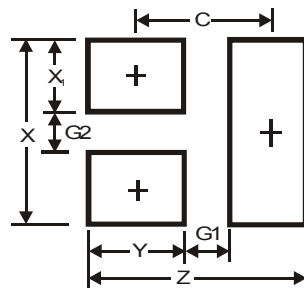
X2-DFN1006-3



X2-DFN1006-3			
Dim	Min	Max	Typ
A	—	0.40	—
A1	0	0.05	0.03
b1	0.10	0.20	0.15
b2	0.45	0.55	0.50
D	0.95	1.05	1.00
E	0.55	0.65	0.60
e	-	-	0.35
L1	0.20	0.30	0.25
L2	0.20	0.30	0.25
L3	-	-	0.40
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN1006-3

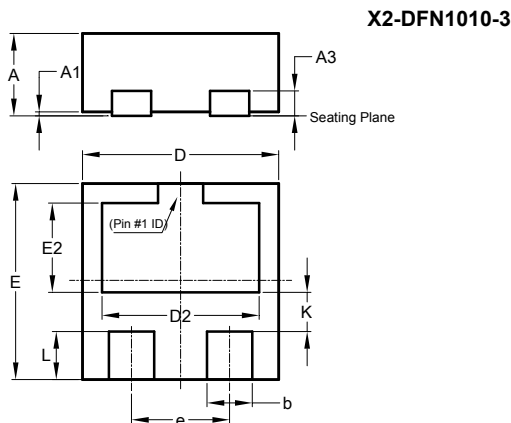


Dimensions	Value (in mm)
Z	1.1
G1	0.3
G2	0.2
X	0.7
X1	0.25
Y	0.4
C	0.7

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

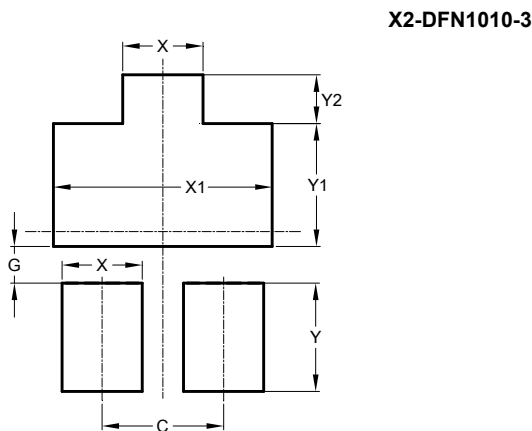
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-DFN1010-3			
Dim	Min	Max	Typ
A	-	0.40	0.39
A1	0.00	0.05	0.02
A3	-	-	0.13
b	0.18	0.28	0.23
D	0.95	1.05	1.00
D2	0.70	0.90	0.80
E	0.95	1.05	1.00
E2	0.36	0.56	0.46
e	-	-	0.50
K	-	-	0.20
L	0.195	0.295	0.245
All Dimensions in mm			

## Suggested Pad Layout

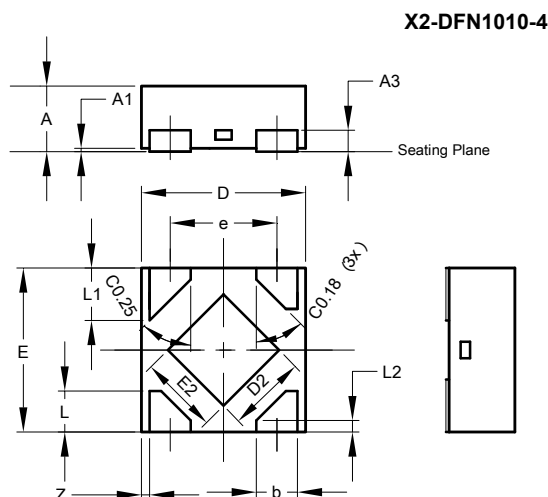


X2-DFN1010-3	
Dimensions	Value
C	0.500
G	0.150
X	0.330
X1	0.900
Y	0.445
Y1	0.505
Y2	0.200
All Dimensions in mm	

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

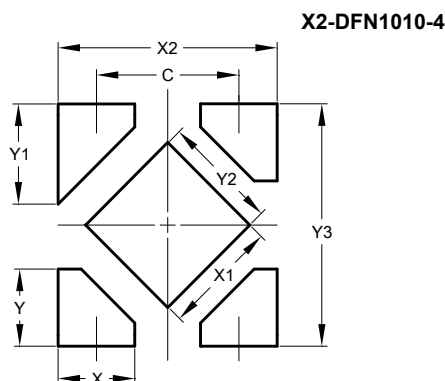
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-DFN1010-4			
Dim	Min	Max	Typ
A	-	0.40	0.39
A1	0.00	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	0.95	1.05	1.00
D2	0.38	0.58	0.48
E	0.95	1.05	1.00
E2	0.38	0.58	0.48
e	-	-	0.65
L	0.20	0.30	0.25
L1	0.27	0.37	0.32
L2	0.02	0.12	0.07
Z	-	-	0.050
All Dimensions in mm			

## Suggested Pad Layout



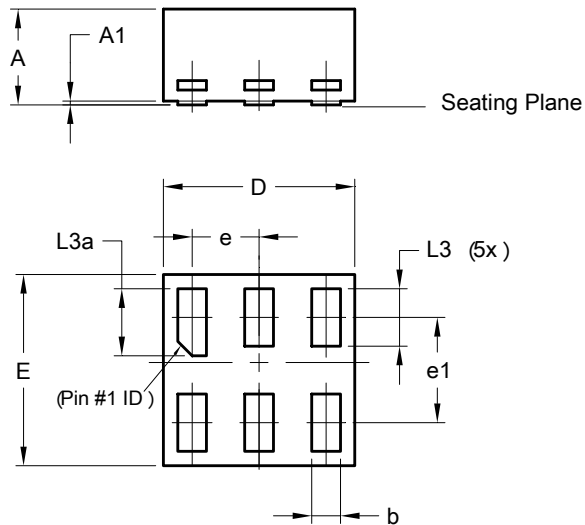
Dimensions	Value (in mm)
C	0.650
X	0.350
X1	0.527
X2	1.000
Y	0.350
Y1	0.455
Y2	0.527
Y3	1.100

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

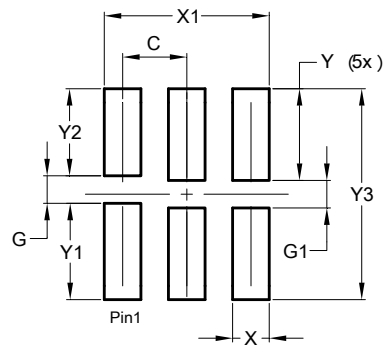
X1-DFN1010-6



X1-DFN1010-6			
Dim	Min	Max	Typ
A	-	0.50	0.39
A1	-	0.04	-
b	0.12	0.20	0.15
D	0.95	1.050	1.00
E	0.95	1.050	1.00
e	0.55 BSC		
e1	0.35 BSC		
L3	0.27	0.30	0.30
L3a	0.32	0.40	0.35
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1010-6

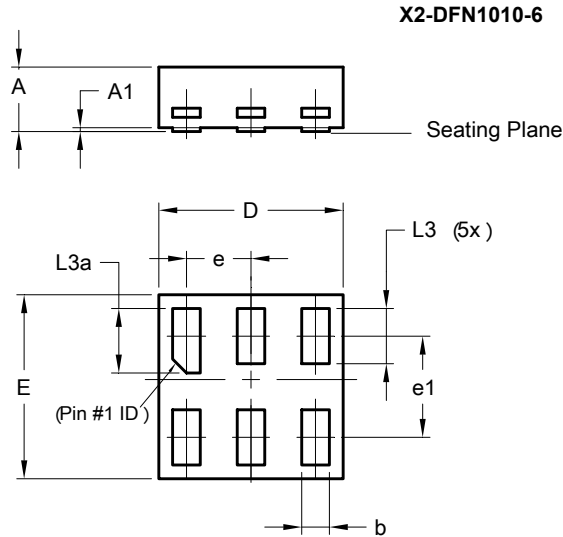


Dimensions	Value (in mm)
C	0.350
G	0.150
G1	0.150
X	0.200
X1	0.900
Y	0.500
Y1	0.525
Y2	0.475
Y3	1.150

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

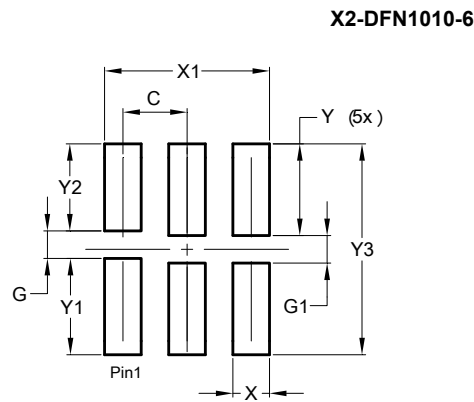
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-DFN1010-6			
Dim	Min	Max	Typ
A	-	0.35	-
A1	-	0.04	-
b	0.12	0.20	0.15
D	0.95	1.050	1.00
E	0.95	1.050	1.00
e	0.55 BSC		
e1	0.35 BSC		
L3	0.27	0.30	0.30
L3a	0.32	0.40	0.35
All Dimensions in mm			

## Suggested Pad Layout

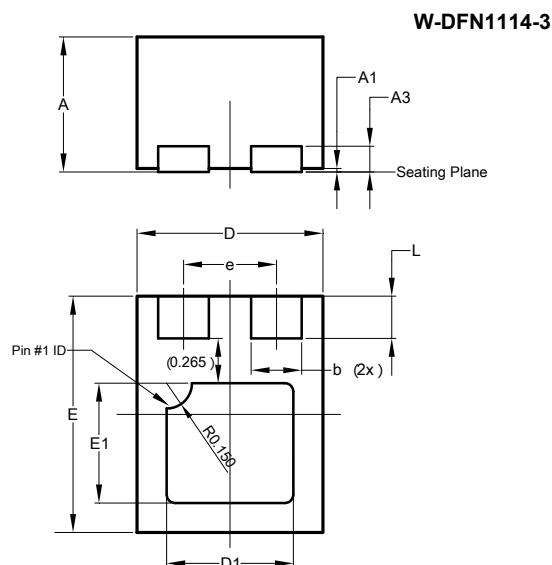


Dimensions	Value (in mm)
C	0.350
G	0.150
G1	0.150
X	0.200
X1	0.900
Y	0.500
Y1	0.525
Y2	0.475
Y3	1.150

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

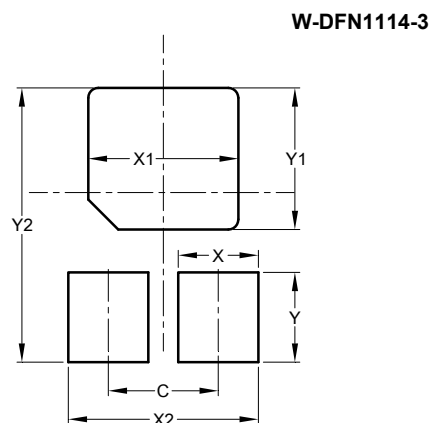
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



W-DFN1114-3			
Dim	Min	Max	Typ
A	0.77	0.83	0.80
A1	0	0.05	0.02
A3	-	-	0.152
b	0.25	0.35	0.30
D	1.05	1.15	1.10
D1	0.70	0.80	0.75
e	-	-	0.55
E	1.35	1.45	1.40
E1	0.66	0.76	0.71
L	0.20	0.30	0.25
All Dimensions in mm			

## Suggested Pad Layout



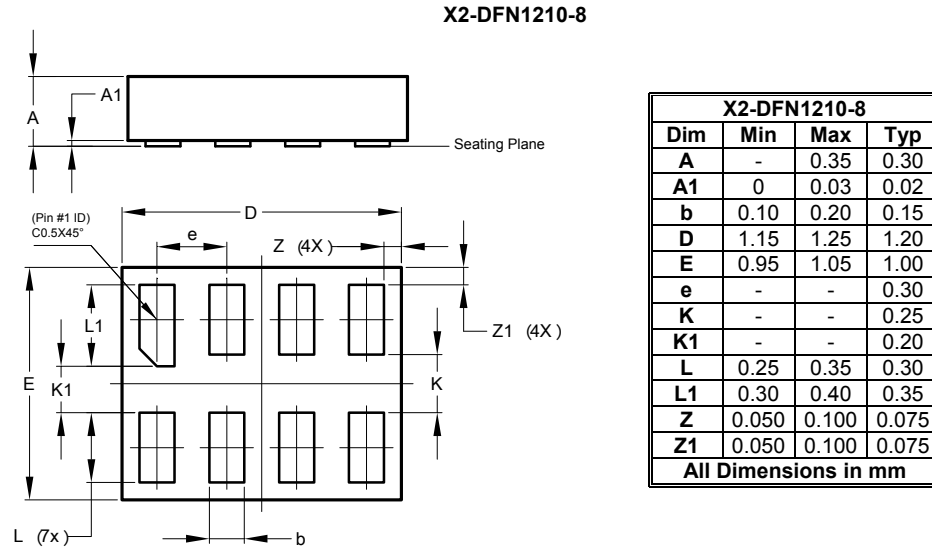
Dimensions	Value (in mm)
C	0.550
X	0.400
X1	0.750
X2	0.950
Y	0.450
Y1	0.710
Y2	1.375

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

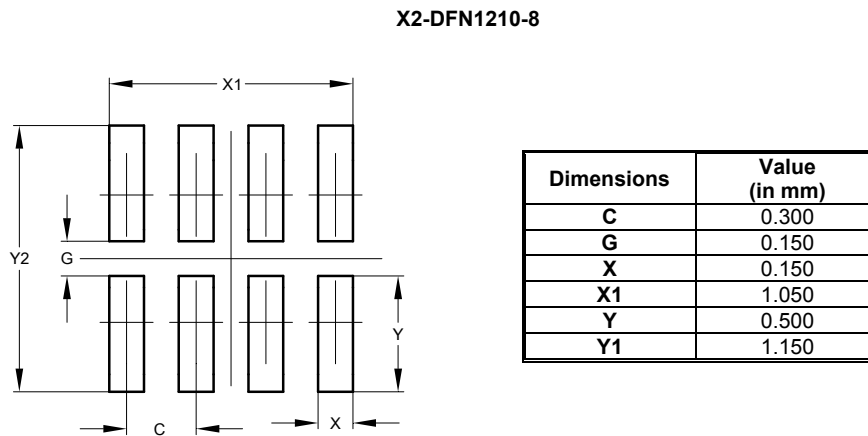
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions



## Suggested Pad Layout

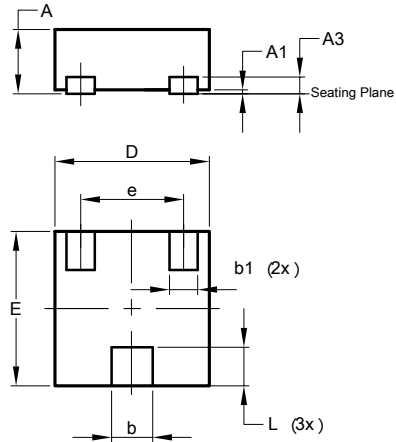


### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

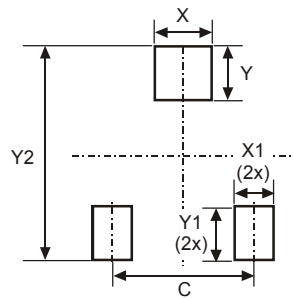
**X1-DFN1212-3**



X1-DFN1212-3			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
A3	-	-	0.13
b	0.27	0.37	0.32
b1	0.17	0.27	0.22
D	1.15	1.25	1.20
E	1.15	1.25	1.20
e	-	-	0.80
L	0.25	0.35	0.30
All Dimensions in mm			

## Suggested Pad Layout

**X1-DFN1212-3**



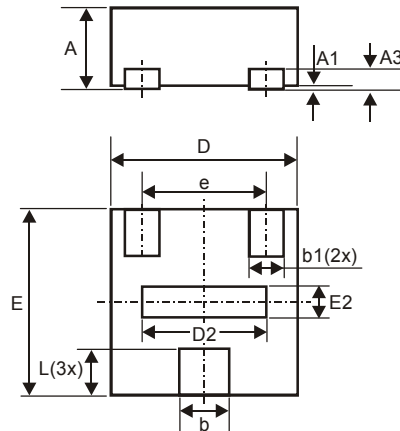
Dimensions	Value (in mm)
C	0.80
X	0.42
X1	0.32
Y	0.50
Y1	0.50
Y2	1.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

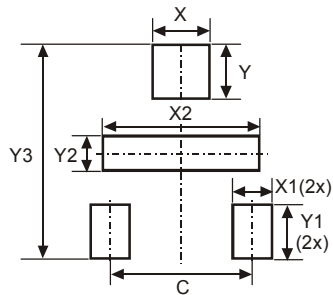
X1-DFN1212-3 (Type B)



X1-DFN1212-3 Type B			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
A3	-	-	0.13
b	0.27	0.37	0.32
b1	0.17	0.27	0.22
D	1.15	1.25	1.20
D2	0.70	0.90	0.80
E	1.15	1.25	1.20
E2	0.10	0.30	0.20
e	-	-	0.80
L	0.25	0.35	0.30
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1212-3 (Type B)



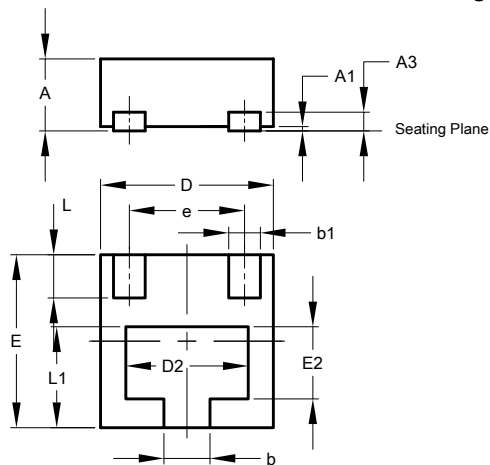
Dimensions	Value (in mm)
C	0.80
X	0.42
X1	0.32
X2	0.90
Y	0.50
Y1	0.50
Y2	0.20
Y3	1.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

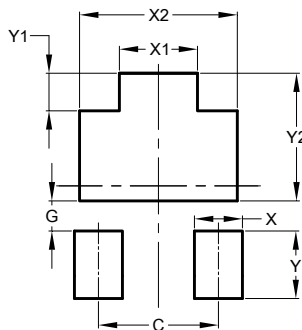
U-DFN1212-3 (Type C)



U-DFN1212-3 Type C			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
A3	-	-	0.13
b	0.27	0.37	0.32
b1	0.17	0.27	0.22
D	1.15	1.25	1.20
D2	0.75	0.95	0.85
e	-	-	0.80
E	1.15	1.25	1.20
E2	0.40	0.60	0.50
L	0.25	0.35	0.30
L1	0.65	0.75	0.70
All Dimensions in mm			

## Suggested Pad Layout

U-DFN1212-3 (Type C)



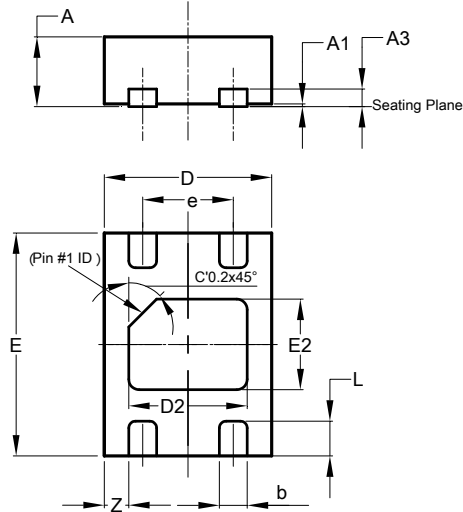
Dimensions	Value (in mm)
C	0.800
G	0.200
X	0.320
X1	0.520
X2	1.050
Y	0.450
Y1	0.250
Y2	0.850

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

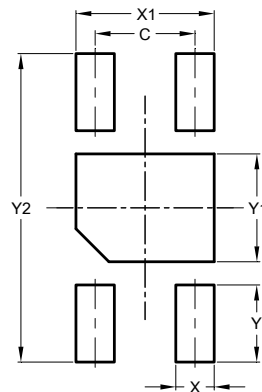
**X1-DFN1216-4**



X1-DFN1216-4			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0.00	0.05	0.02
A3	--	--	0.13
b	0.15	0.25	0.20
D	1.15	1.25	1.20
D2	0.75	0.95	0.85
E	1.55	1.65	1.60
E2	0.55	0.75	0.65
e	-	-	0.65
L	0.20	0.30	0.25
Z	-	-	0.175
All Dimensions in mm			

## Suggested Pad Layout

**X1-DFN1216-4**



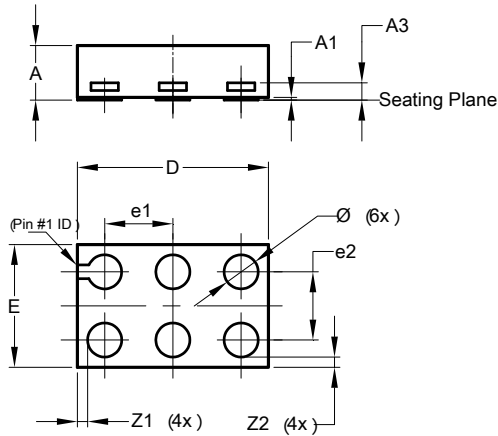
X1-DFN1216-4	
Dimensions	Value (in mm)
C	0.65
X	0.25
X1	0.90
Y	0.50
Y1	0.70
Y2	2.00

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

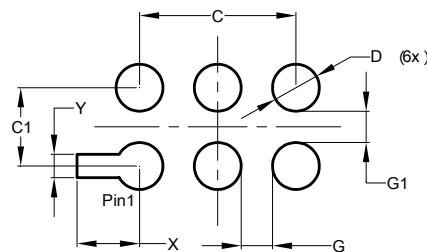
X2-DFN1409-6



X2-DFN1409-6			
Dim	Min	Max	Typ
A	-	0.40	0.39
A1	0	0.05	0.02
A3	-	-	0.13
Ø	0.20	0.30	0.25
D	1.35	1.45	1.40
E	0.85	0.95	0.90
e1	-	-	0.50
e2	-	-	0.50
Z1	-	-	0.075
Z2	-	-	0.075
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN1409-6



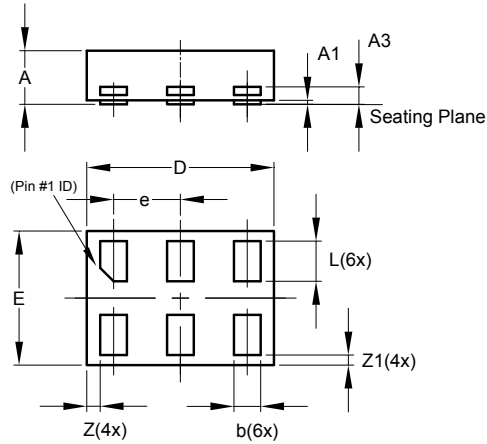
Dimensions	Value (in mm)
C	1.000
C1	0.500
D	0.300
G	0.200
G1	0.200
X	0.400
Y	0.150

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

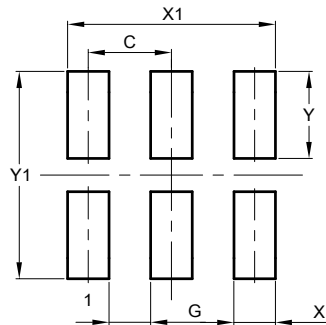
X2-DFN1410-6



X2-DFN1410-6			
Dim	Min	Max	Typ
A	—	0.40	0.39
A1	0.00	0.05	0.02
A3	—	—	0.13
b	0.15	0.25	0.20
D	1.35	1.45	1.40
E	0.95	1.05	1.00
e	—	—	0.50
L	0.25	0.35	0.30
Z	—	—	0.10
Z1	0.045	0.105	0.075
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN1410-6



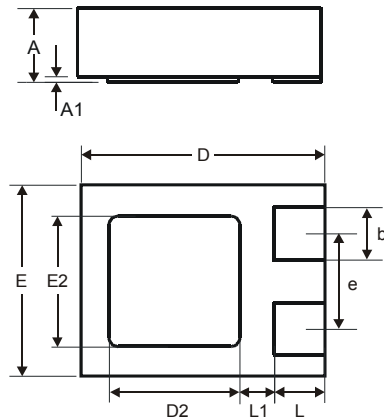
Dimensions	Value (in mm)
C	0.500
G	0.250
X	0.250
X1	1.250
Y	0.525
Y1	1.250

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

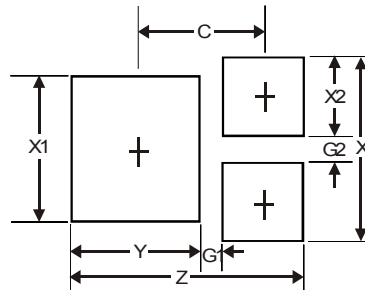
X1-DFN1411-3



X1-DFN1411-3			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
b	0.25	0.35	0.30
D	1.35	1.475	1.40
D2	0.65	0.85	0.75
E	1.05	1.175	1.10
E2	0.65	0.85	0.75
e	-	-	0.55
L	0.225	0.325	0.275
L1	-	-	0.20
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1411-3



Dimensions	Value (in mm)
Z	1.38
G1	0.15
G2	0.15
X	0.95
X1	0.75
X2	0.40
Y	0.75
C	0.76

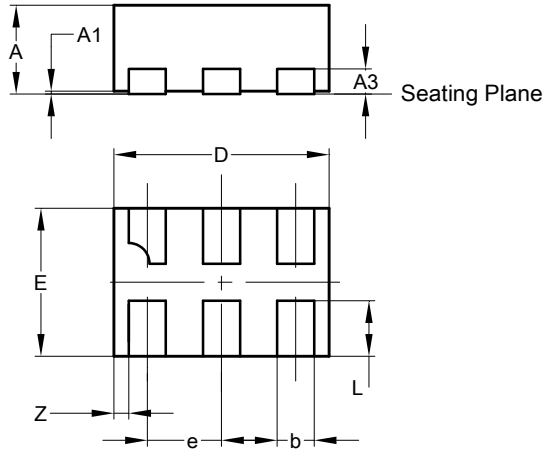
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

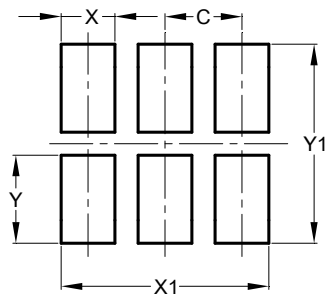
U-DFN1510-6



U-DFN1510-6			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	-	0.05	0.03
A3	-	-	0.13
b	0.20	0.30	0.25
D	1.40	1.525	1.45
E	0.95	1.075	1.00
e	-	-	0.50
L	0.325	0.425	0.375
Z	-	-	0.100
All Dimensions in mm			

## Suggested Pad Layout

U-DFN1510-6



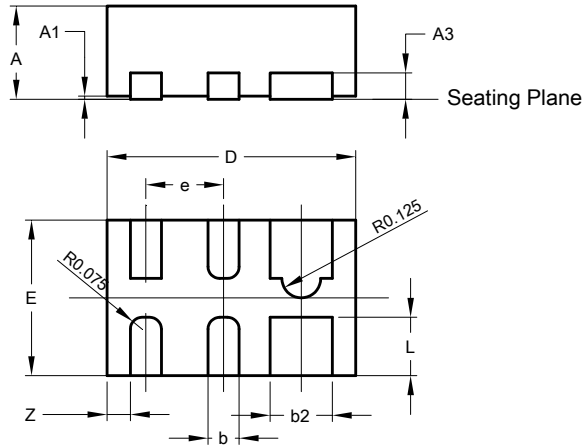
Dimensions	Value (in mm)
C	0.500
X	0.350
X1	1.350
Y	0.575
Y1	1.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

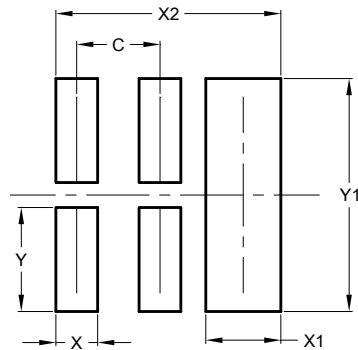
U-DFN1610-6



U-DFN1610-6			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0.00	0.05	0.03
A3	-	-	0.13
b	0.15	0.25	0.20
b2	0.35	0.45	0.40
D	1.550	1.675	1.600
E	0.950	1.075	1.000
e	0.50 BSC		
L	0.325	0.425	0.375
z	-	-	0.150
All Dimensions in mm			

## Suggested Pad Layout

U-DFN1610-6



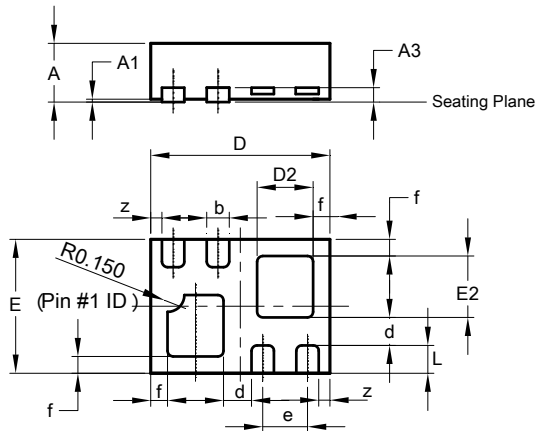
Dimensions	Value (in mm)
C	0.500
X	0.250
X1	0.450
X2	1.350
Y	0.625
Y1	1.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

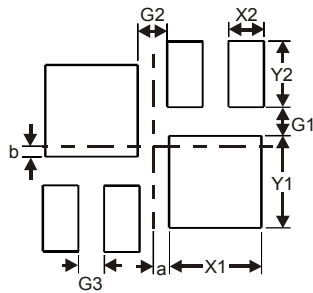
X1-DFN1612-6



X1-DFN1612-6			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
A3	-	-	0.13
b	0.15	0.25	0.20
D	1.55	1.675	1.60
d	-	-	0.25
D2	0.40	0.60	0.50
E	1.15	1.28	1.20
e	-	-	0.40
E2	0.45	0.65	0.55
f	-	-	0.15
L	0.20	0.30	0.25
Z	-	-	0.10
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1612-6



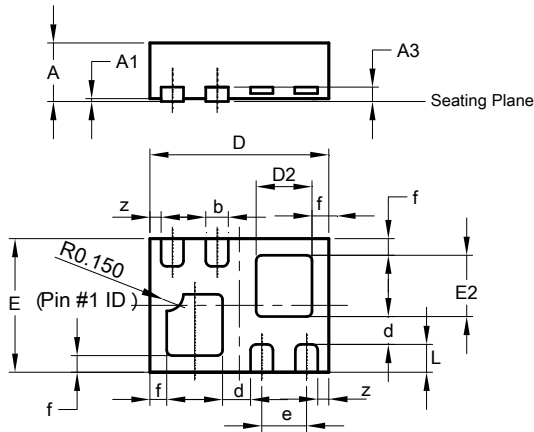
Dimensions	X1-DFN1612-6
G1	0.15
G2	0.175
G3	0.15
X1	0.60
X2	0.25
Y1	0.65
Y2	0.45
a	0.10
b	0.15

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

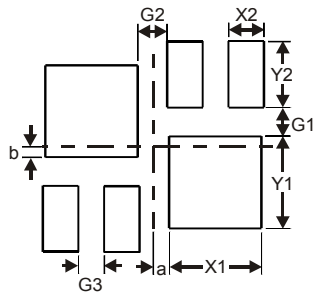
X2-DFN1310-6



X2-DFN1310-6			
Dim	Min	Max	Typ
A	-	0.40	-
A1	0	0.05	0.02
A3	-	-	0.13
b	0.10	0.20	0.15
D	1.25	1.38	1.30
d	-	-	0.25
D2	0.30	0.50	0.40
E	0.95	1.075	1.00
e	-	-	0.35
E2	0.30	0.50	0.40
f	-	-	0.10
L	0.20	0.30	0.25
Z	-	-	0.05
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN1310-6

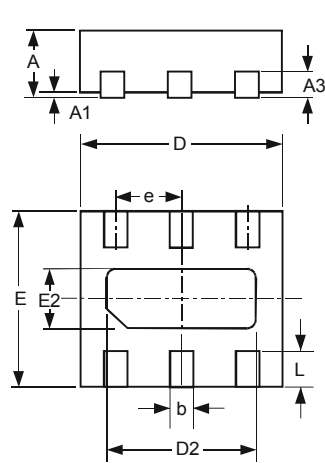


Dimensions	X2- DFN1310-6
G1	0.16
G2	0.17
G3	0.15
X1	0.52
X2	0.20
Y1	0.52
Y2	0.375
a	0.09
b	0.06

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

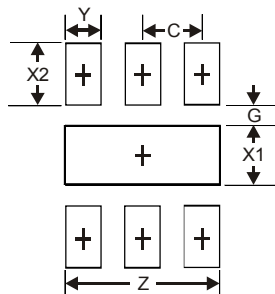
## Package Outline Dimensions



U-DFN1616-6

U-DFN1616-6			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	1.55	1.675	1.60
D2	1.10	1.30	1.20
E	1.55	1.675	1.60
e	-	-	0.50
E2	0.30	0.50	0.40
L	0.275	0.375	0.325
All Dimensions in mm			

## Suggested Pad Layout



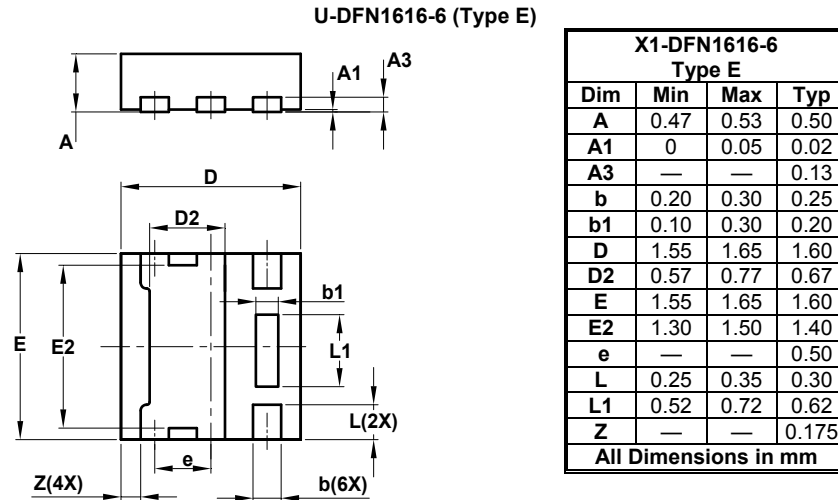
U-DFN1616-6

Dimensions	Value (in mm)
Z	1.3
G	0.175
X1	0.50
X2	0.525
Y	0.30
C	0.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

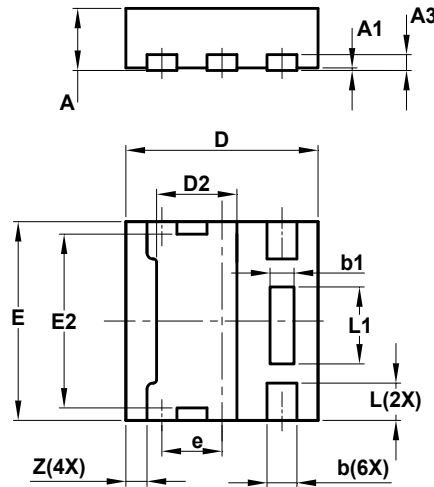


### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

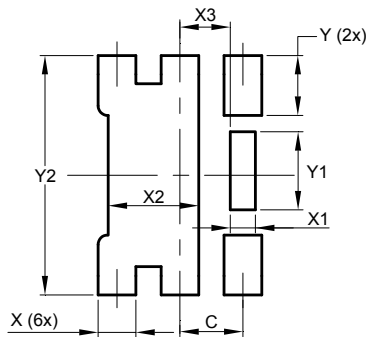
X1-DFN1616-6 (Type E)



X1-DFN1616-6 Type E			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
A3	—	—	0.13
b	0.20	0.30	0.25
b1	0.10	0.30	0.20
D	1.55	1.65	1.60
D2	0.57	0.77	0.67
E	1.55	1.65	1.60
E2	1.30	1.50	1.40
e	—	—	0.50
L	0.25	0.35	0.30
L1	0.52	0.72	0.62
Z	—	—	0.175
All Dimensions in mm			

## Suggested Pad Layout

X1-DFN1616-6 (Type E)



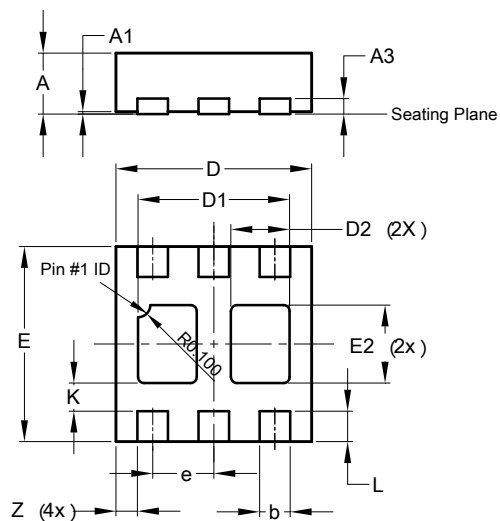
Dimensions	Value (in mm)
C	0.500
X	0.300
X1	0.200
X2	0.720
X3	0.400
Y	0.475
Y1	0.620
Y2	1.900

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

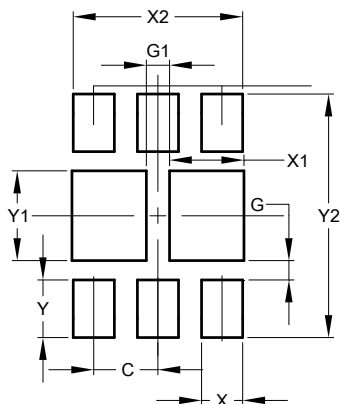
U-DFN1616-6 (Type F)



U-DFN1616-6 Type F			
Dim	Min	Max	Typ
A	0.45	0.55	0.50
A1	0	0.05	0.02
A3	—	—	0.127
b	0.20	0.30	0.25
D	1.55	1.65	1.60
D1	1.14	1.34	1.24
D2	0.38	0.58	0.48
E	1.55	1.65	1.60
E2	0.54	0.74	0.64
e	—	—	0.50
K	—	—	0.23
L	0.15	0.35	0.25
Z	—	—	0.175
All Dimensions in mm			

## Suggested Pad Layout

U-DFN1616-6 (Type F)



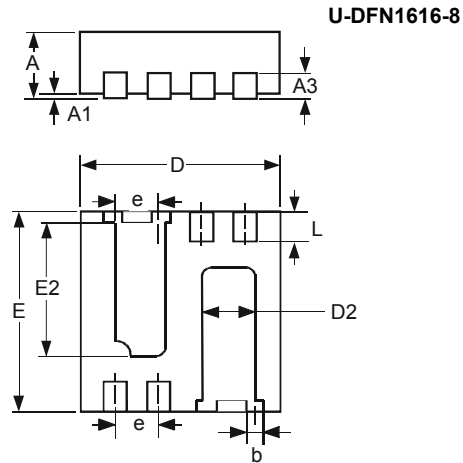
Dimensions	Value (in mm)
C	0.500
G	0.150
G1	0.180
X	0.320
X1	0.580
X2	1.320
Y	0.450
Y1	0.700
Y2	1.900

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

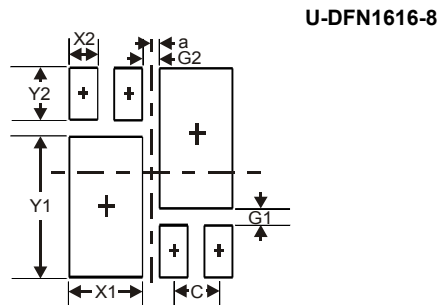


## Package Outline Dimensions



U-DFN1616-8			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	-	-	0.13
b	0.15	0.25	0.20
D	1.55	1.675	1.60
D2	0.35	0.55	0.45
E	1.55	1.675	1.60
e	-	-	0.40
E2	0.90	1.10	1.00
L	0.25	0.35	0.30
All Dimensions in mm			

## Suggested Pad Layout



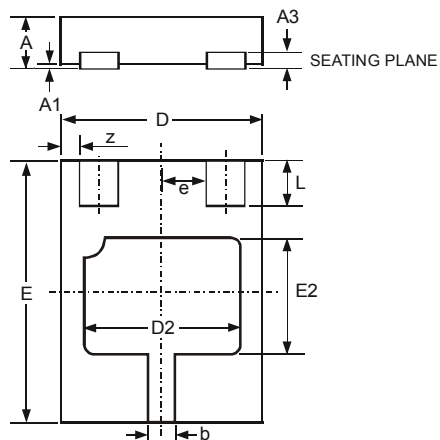
Dimensions	Value (in mm)
G1	0.15
G2	0.20
X1	0.65
X2	0.25
Y1	1.25
Y2	0.50
C	0.40
a	0.10

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

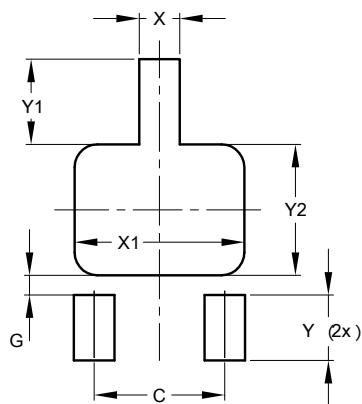
X2-DFN2015-3



X2-DFN2015-3			
Dim	Min	Max	Typ
A	-	0.40	-
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	1.45	1.575	1.5
D2	1.00	1.20	1.10
e	-	-	0.50
E	1.95	2.075	2.00
E2	0.70	0.90	0.80
L	0.25	0.35	0.30
z	-	-	0.125
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN2015-3



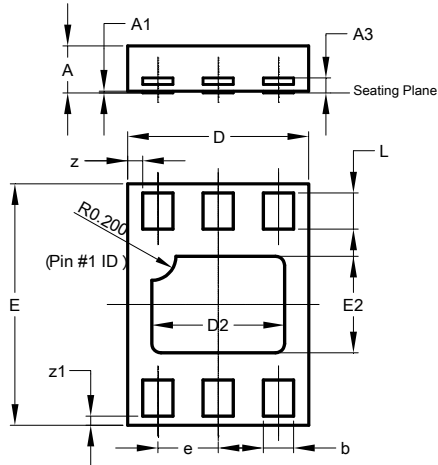
X2-DFN2015-3	
Dimensions	Value (in mm)
C	1.000
G	0.150
X	0.310
X1	1.300
Y	0.500
Y1	0.650
Y2	1.000

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

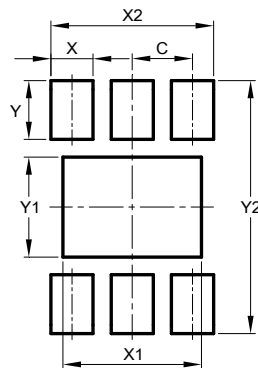
**X2-DFN2015-6**



X2-DFN2015-6			
Dim	Min	Max	Typ
A	0.375	0.40	0.390
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	1.45	1.575	1.50
D2	1.00	1.20	1.10
e	-	-	0.50
E	1.95	2.075	2.00
E2	0.70	0.90	0.80
L	0.25	0.35	0.30
Z	-	-	0.125
Z1	-	-	0.075
All Dimensions in mm			

## Suggested Pad Layout

**X2-DFN2015-6**



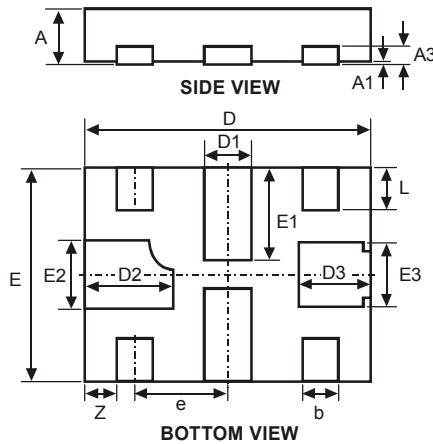
X2-DFN2015-6	
Dimensions	Value (in mm)
C	0.500
X	0.350
X1	1.150
X2	1.350
Y	0.500
Y1	0.850
Y2	2.150

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

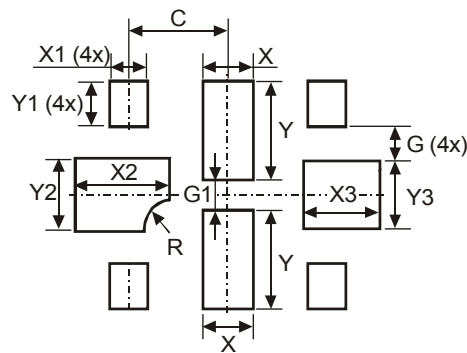
X2-DFN2015-8



X2-DFN2015-8			
Dim	Min	Max	Typ
D	1.95	2.05	2.00
E	1.45	1.55	1.50
D1	0.23	0.43	0.33
E1	0.55	0.75	0.65
D2	0.52	0.72	0.62
E2	0.38	0.58	0.48
D3	0.40	0.60	0.50
E3	0.35	0.55	0.45
A	-	0.40	0.39
A1	0	0.05	0.02
A3	-	-	0.127
b	0.20	0.30	0.25
L	0.25	0.35	0.30
e	-	-	0.65
Z	-	-	0.225
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN2015-8



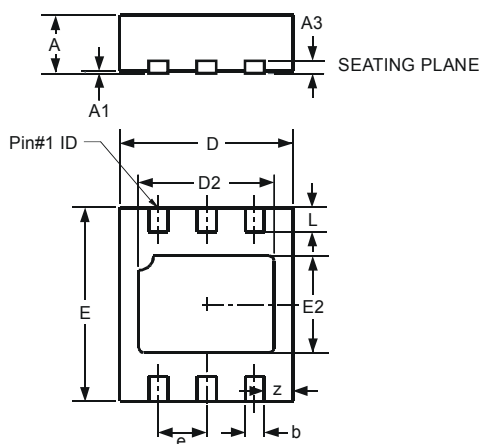
Dimensions	Value (in mm)
C	0.650
G	0.150
G1	0.150
X	0.410
X1	0.350
X2	0.795
X3	0.700
Y	0.825
Y1	0.500
Y2	0.480
Y3	0.500
R	R0.125

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

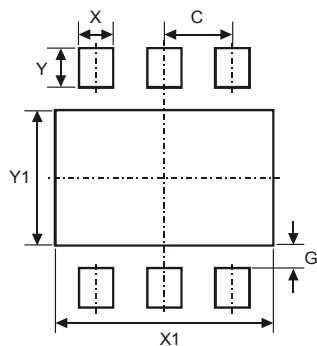
U-DFN2018-6



U-DFN2018-6			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	-	-	0.13
b	0.15	0.25	0.20
D	1.750	1.875	1.80
D2	1.30	1.50	1.40
e	-	-	0.50
E	1.95	2.075	2.00
E2	0.90	1.10	1.00
L	0.20	0.30	0.25
z	-	-	0.30
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2018-6



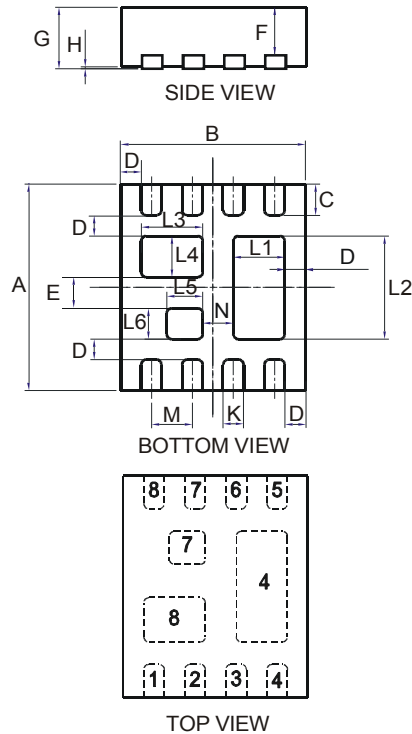
Dimensions	Value (in mm)
C	0.50
G	0.20
X	0.25
X1	1.60
Y	0.35
Y1	1.20

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

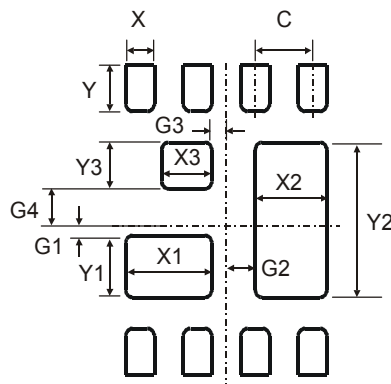
X2-DFN2018-8



X2-DFN2018-8			
Dim	Min	Max	Typ
A	1.95	2.08	2.00
B	1.75	1.88	1.80
C	0.25	0.35	0.30
D	-	-	0.20
E	-	-	0.30
F	-	-	0.26
G	0.36	0.40	0.39
H	0	0.05	0.02
K	0.15	0.25	0.20
L1	0.40	0.60	0.50
L2	0.90	1.10	1.00
L3	0.50	0.70	0.60
L4	0.30	0.50	0.40
L5	0.25	0.45	0.35
L6	0.20	0.40	0.30
M	-	-	0.40
N	-	-	0.30
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN2018-8

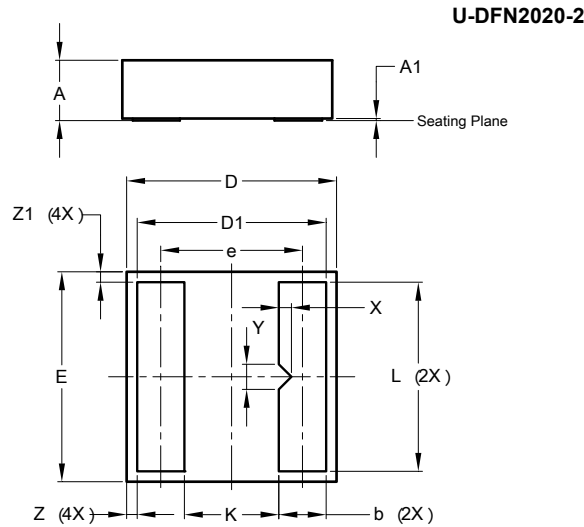


Dimensions	Value (in mm)
C	0.40
G1	0.10
G2	0.20
G3	0.10
G4	0.20
X	0.25
X1	0.60
X2	0.50
X3	0.35
Y	0.50
Y1	0.40
Y2	1.00
Y3	0.30

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

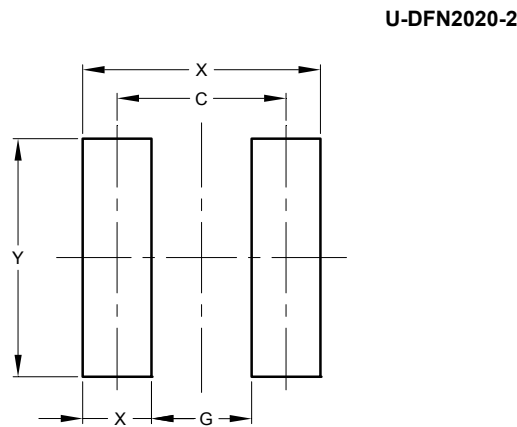
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-DFN2020-2			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
b	0.35	0.55	0.45
D	1.90	2.10	2.00
D1	1.70	1.90	1.80
E	1.90	2.10	2.00
e	1.35 BSC		
K	0.80	1.00	0.90
L	1.70	1.90	1.80
X	-	-	0.120
Y	-	-	0.240
Z	0.10 BSC		
Z1	0.10 BSC		
All Dimensions in mm			

## Suggested Pad Layout



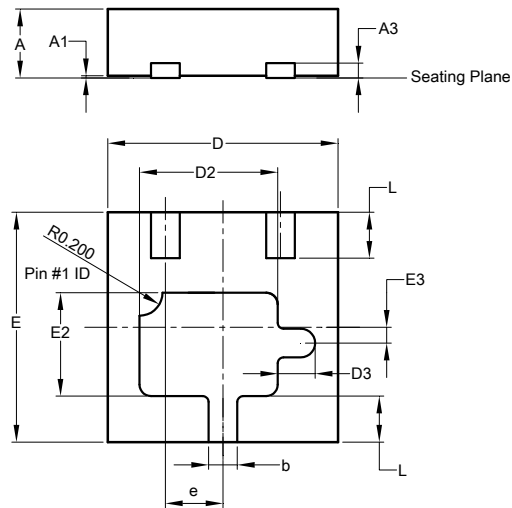
Dimensions	Value (in mm)
C	1.350
G	0.800
X	0.550
X1	1.900
Y	1.900

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

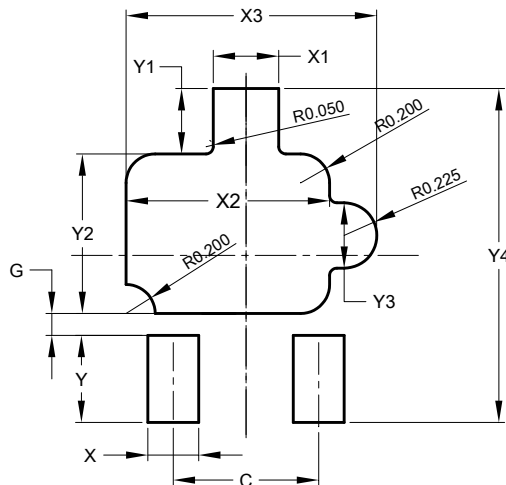
U-DFN2020-3



U-DFN2020-3			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.152
b	0.20	0.30	0.25
D	1.950	2.075	2.00
D2	1.10	1.30	1.20
D3	0.325 REF		
e	-	-	0.50
E	1.950	2.075	2.00
E2	0.80	1.00	0.90
E3	0.138 REF		
L	0.35	0.45	0.40
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2020-3



Dimensions	Value (in mm)
C	1.000
G	0.150
X	0.350
X1	0.450
X2	1.400
X3	1.724
Y	0.600
Y1	0.450
Y2	1.100
Y3	0.450
Y4	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

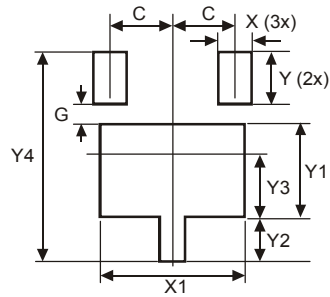
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.





## Suggested Pad Layout

V-DFN2020-3



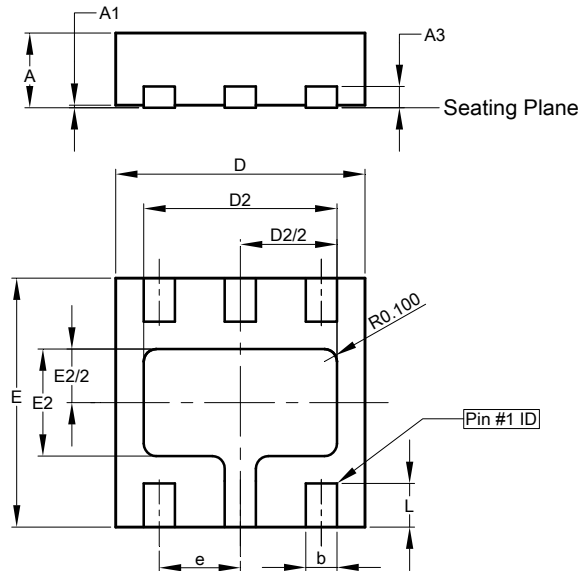
Dimensions	Value (in mm)
C	0.65
G	0.20
X	0.35
X1	1.52
Y	0.55
Y1	0.98
Y2	0.47
Y3	0.63
Y4	2.20

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

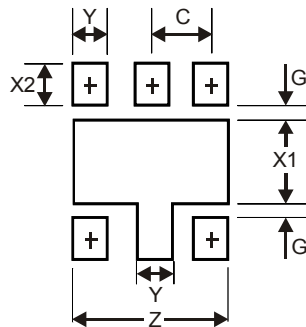
## Package Outline Dimensions

U-DFN2020-6



U-DFN2020-6			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.03
A3	-	-	0.15
b	0.20	0.30	0.25
D	1.95	2.075	2.00
D2	1.45	1.65	1.55
e	-	-	0.65
E	1.95	2.075	2.00
E2	0.76	0.96	0.86
L	0.30	0.40	0.35
All Dimensions in mm			

## Suggested Pad Layout



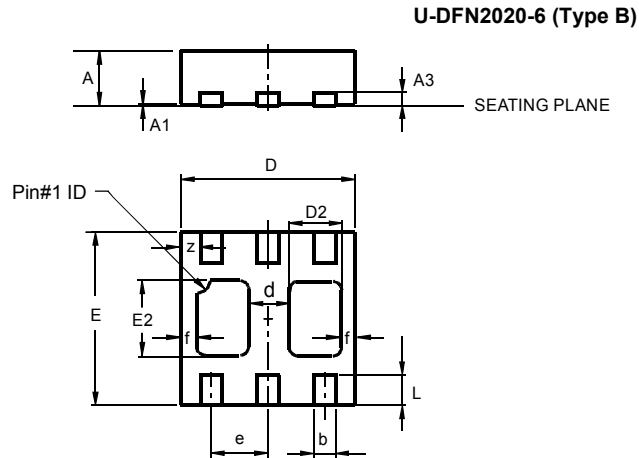
Dimensions	Value (in mm)
Z	1.67
G	0.15
X1	0.90
X2	0.45
Y	0.37
C	0.65

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

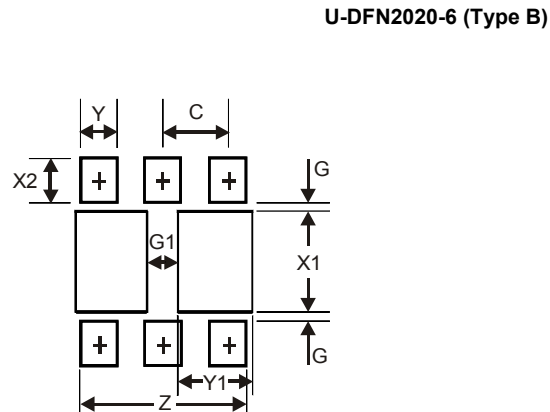


## Package Outline Dimensions



U-DFN2020-6 Type B			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	1.95	2.075	2.00
d	-	-	0.45
D2	0.50	0.70	0.60
e	-	-	0.65
E	1.95	2.075	2.00
E2	0.90	1.10	1.00
f	-	-	0.15
L	0.25	0.35	0.30
z	-	-	0.225
All Dimensions in mm			

## Suggested Pad Layout



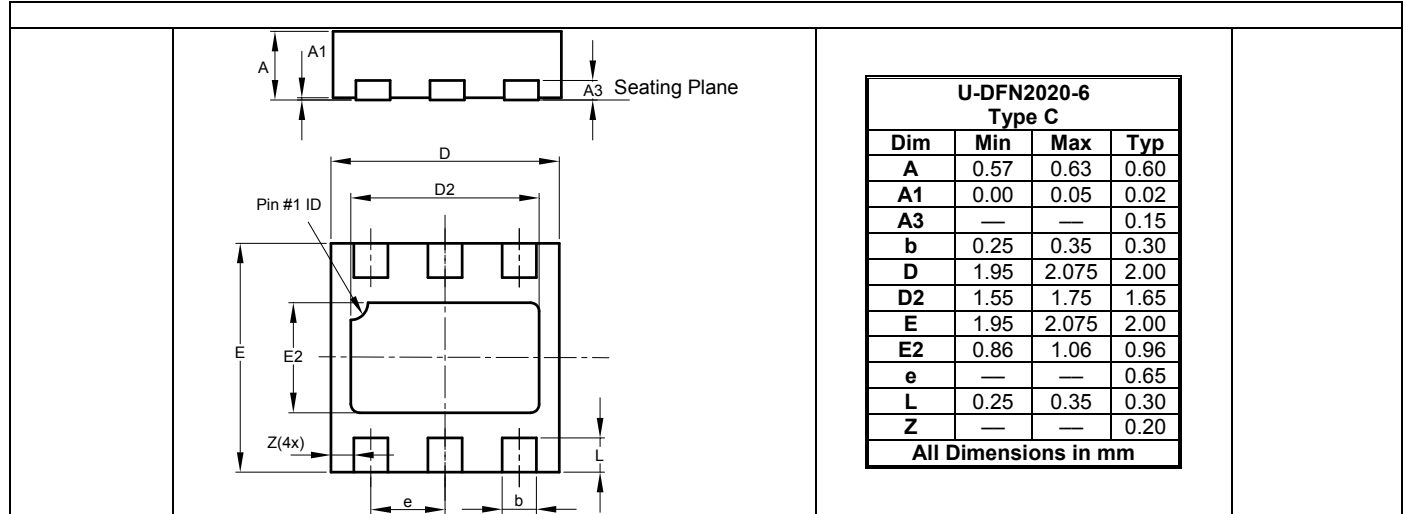
Dimensions	Value (in mm)
Z	1.67
G	0.20
G1	0.40
X1	1.0
X2	0.45
Y	0.37
Y1	0.70
C	0.65

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

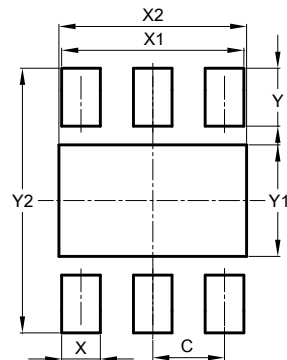
## Package Outline Dimensions

U-DFN2020-6 (Type C)



## Suggested Pad Layout

U-DFN2020-6 (Type C)



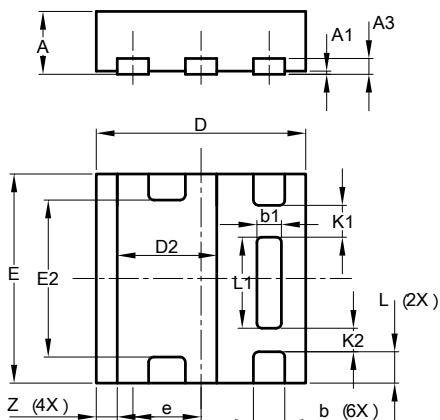
Dimensions	Value (in mm)
C	0.650
X	0.350
X1	1.650
X2	1.700
Y	0.525
Y1	1.010
Y2	2.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

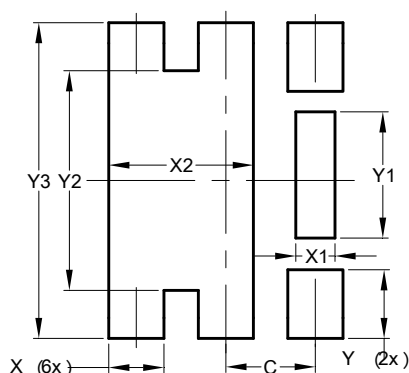
U-DFN2020-6 (Type E)



U-DFN2020-6 Type E			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.03
A3	—	—	0.15
b	0.25	0.35	0.30
b1	0.185	0.285	0.235
D	1.95	2.05	2.00
D2	0.85	1.05	0.95
E	1.95	2.05	2.00
E2	1.40	1.60	1.50
e	—	—	0.65
L	0.25	0.35	0.30
L1	0.82	0.92	0.87
K1	—	—	0.305
K2	—	—	0.225
Z	—	—	0.20
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2020-6 (Type E)

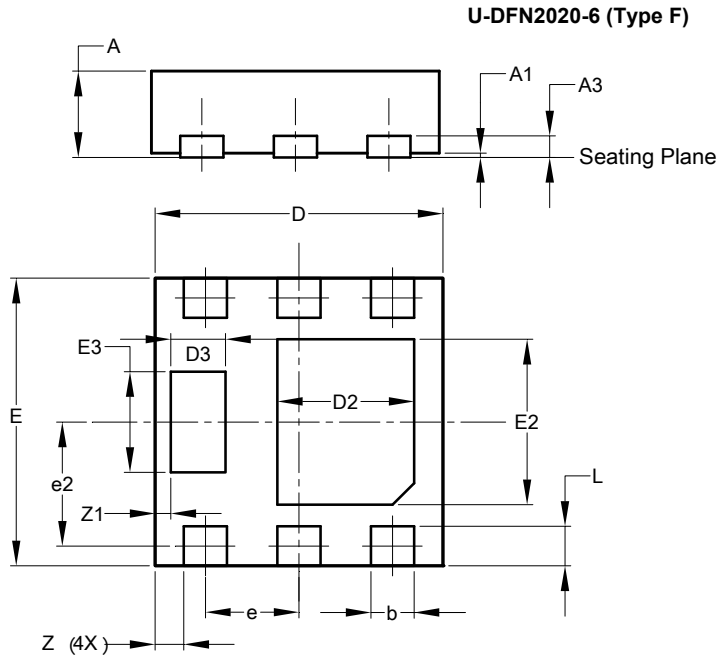


Dimensions	Value (in mm)
C	0.650
X	0.400
X1	0.285
X2	1.050
Y	0.500
Y1	0.920
Y2	1.600
Y3	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

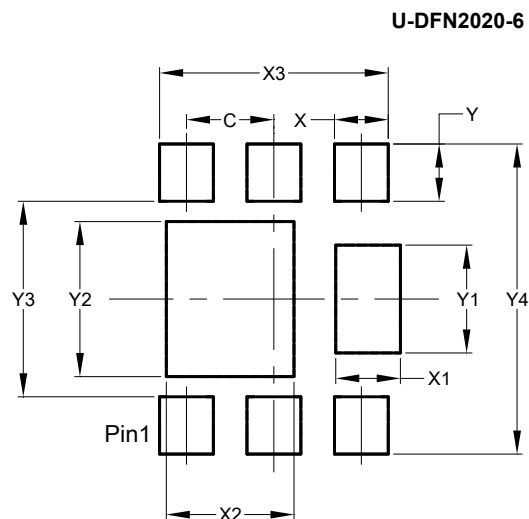
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-DFN2020-6 (Type F)			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.03
A3	-	-	0.15
b	0.25	0.35	0.30
D	1.95	2.05	2.00
D2	0.85	1.05	0.95
D3	0.33	0.43	0.38
e	0.65 BSC		
e2	0.863 BSC		
E	1.95	2.05	2.00
E2	1.05	1.25	1.15
E3	0.65	0.75	0.70
L	0.225	0.325	0.275
Z	0.20 BSC		
Z1	0.110 BSC		
All Dimensions in mm			

## Suggested Pad Layout



Dimensions	Value (in mm)
C	0.650
X	0.400
X1	0.480
X2	0.950
X3	1.700
Y	0.425
Y1	0.800
Y2	1.150
Y3	1.450
Y4	2.300

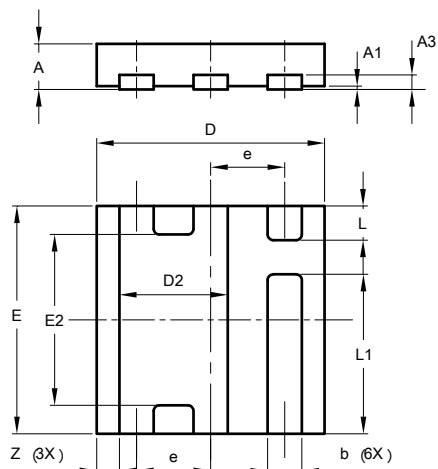
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

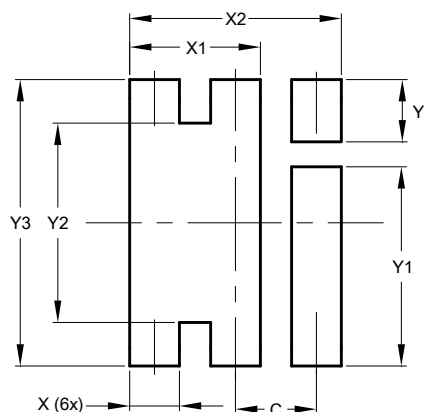
X2-DFN2020-6



X2-DFN2020-6			
Dim	Min	Max	Typ
A	—	0.40	—
A1	0	0.05	0.03
A3	—	—	0.13
b	0.25	0.35	0.30
D	1.95	2.05	2.00
D2	0.85	1.05	0.95
E	1.95	2.05	2.00
E2	1.40	1.60	1.50
e	—	—	0.65
L	0.25	0.35	0.30
L1	1.35	1.45	1.40
Z	—	—	0.20
All Dimensions in mm			

## Suggested Pad Layout

X2-DFN2020-6



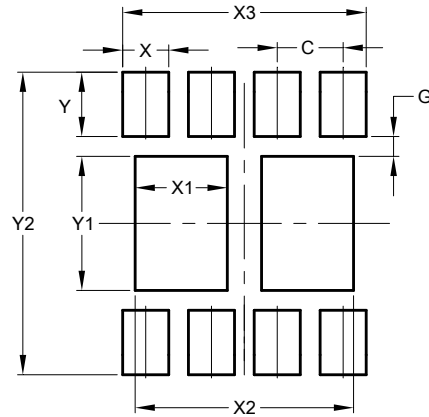
Dimensions	Value (in mm)
C	0.650
X	0.400
X1	1.050
X2	1.700
Y	0.500
Y1	1.600
Y2	1.600
Y3	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Suggested Pad Layout

U-DFN2020-8



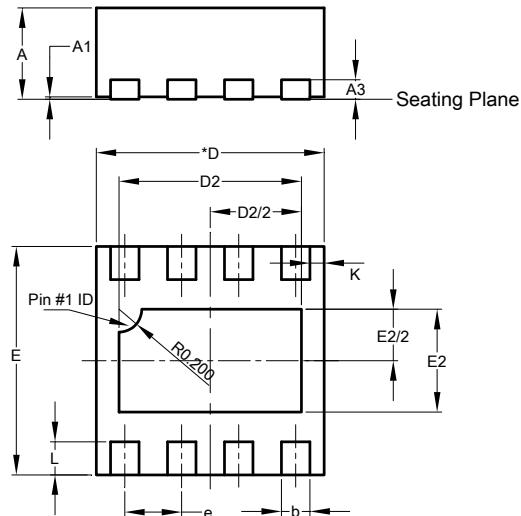
Dimensions	Value (in mm)
C	0.500
G	0.150
X	0.350
X1	0.700
X2	1.660
Y	0.490
Y1	1.020
Y2	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

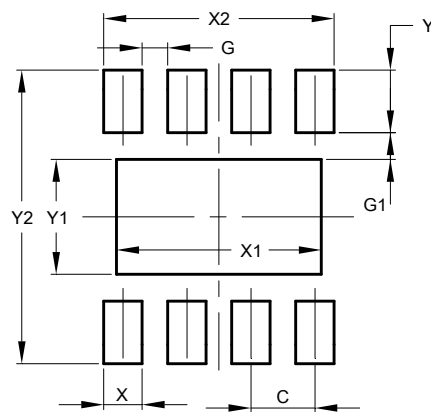
W-DFN2020-8 (Type C)



W-DFN2020-8 Type C			
Dim	Min	Max	Typ
A	0.770	0.830	0.800
A1	0	0.05	0.02
A3	-	-	0.152
b	0.20	0.30	0.25
D	1.950	2.075	2.000
D2	1.50	1.70	1.60
E	1.950	2.075	2.000
E2	0.80	1.00	0.90
e	-	-	0.50
K	-	-	0.125
L	0.240	0.340	0.290
All Dimensions in mm			

## Suggested Pad Layout

W-DFN2020-8



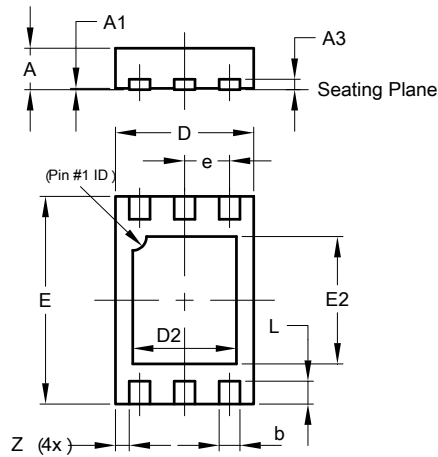
Dimensions	Value (in mm)
C	0.500
G	0.200
G1	0.210
X	0.300
X1	1.600
X2	1.750
Y	0.490
Y1	0.900
Y2	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

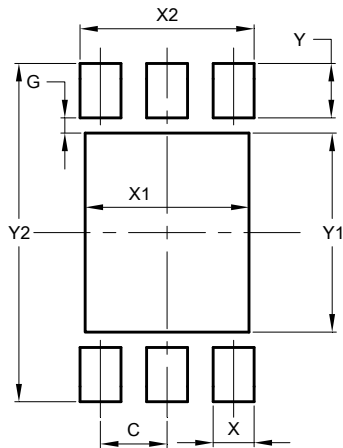
U-DFN2030-6 (Type B)



U-DFN2030-6 Type B			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.25	0.35	0.30
D	1.95	2.05	2.00
D2	1.40	1.60	1.50
E	2.95	3.05	3.00
E2	1.74	1.94	1.84
e	-	-	0.65
L	0.28	0.38	0.33
Z	-	-	0.20
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2030-6 (Type B)



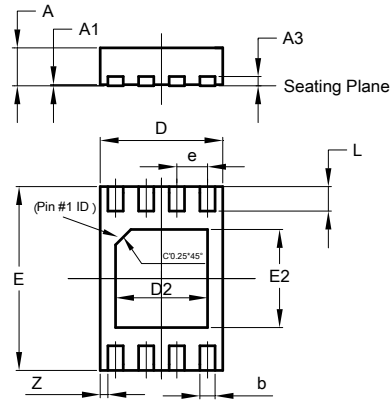
Dimensions	Value (in mm)
C	0.650
G	0.150
X	0.400
X1	1.600
X2	1.700
Y	0.530
Y1	1.940
Y2	3.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

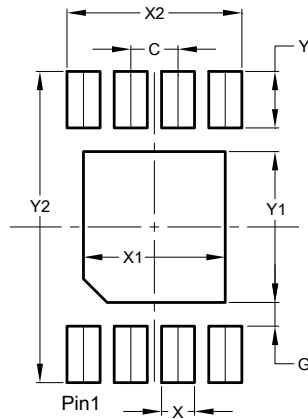
U-DFN2030-8



U-DFN2030-8			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	1.95	2.05	2.00
D2	1.40	1.60	1.50
e	-	-	0.50
E	2.95	3.05	3.00
E2	1.50	1.70	1.60
L	0.35	0.45	0.40
Z	-	-	0.125
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2030-8



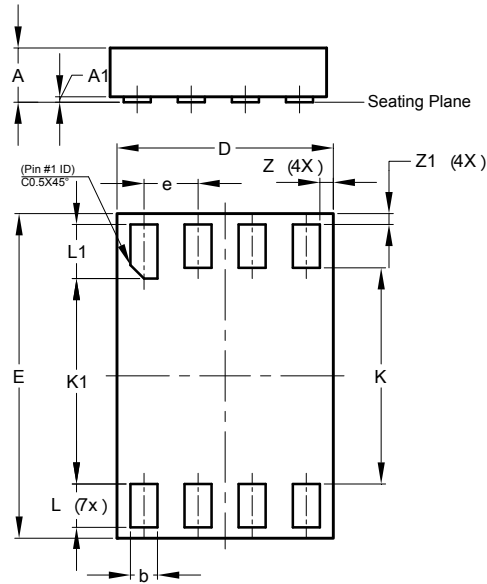
Dimensions	Value (in mm)
C	0.500
G	0.250
X	0.350
X1	1.500
X2	1.850
Y	0.600
Y1	1.600
Y2	3.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

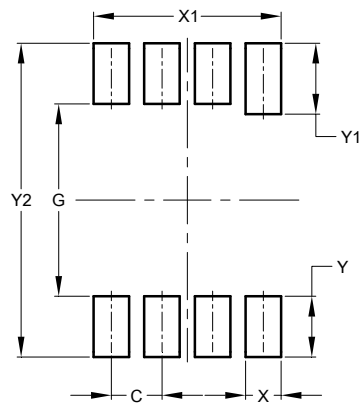
**X1-DFN2030-8**



X1-DFN2030-8			
Dim	Min	Max	Typ
A	0.470	0.530	0.50
A1	0	0.05	0.02
b	0.20	0.30	0.25
D	1.95	2.05	2.00
E	2.95	3.05	3.00
e	-	-	0.50
K	2.00	-	-
K1	1.90	-	-
L	0.35	0.45	0.40
L1	0.45	0.55	0.50
Z	-	-	0.125
Z1	-	-	0.100
All Dimensions in mm			

## Suggested Pad Layout

**X1-DFN2030-8**



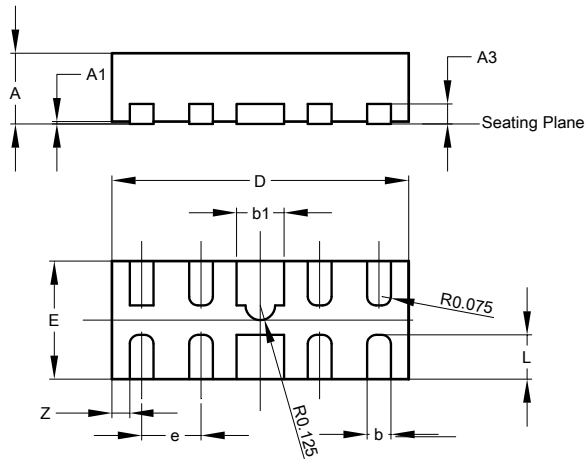
Dimensions	Value (in mm)
C	0.500
G	1.900
X	0.350
X1	1.850
Y	0.500
Y1	0.700
Y2	3.100

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

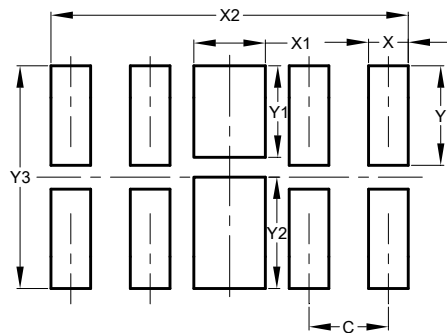
U-DFN2510-10



U-DFN2510-10			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.03
A3	-	-	0.13
b	0.15	0.25	0.20
b1	0.35	0.45	0.40
D	2.450	2.575	2.500
e	-	-	0.50
E	0.950	1.075	1.000
L	0.325	0.425	0.375
Z	-	-	0.150
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2510-10



Dimensions	Value (in mm)
C	0.500
X	0.250
X1	0.450
X2	2.250
Y	0.625
Y1	0.575
Y2	0.700
Y3	1.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

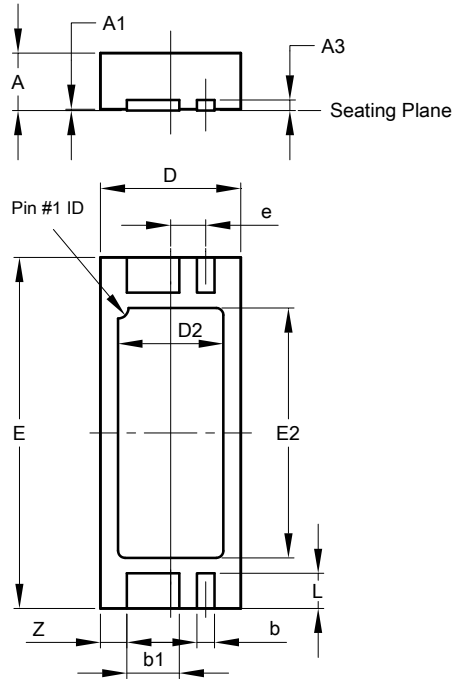
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.





## Package Outline Dimensions

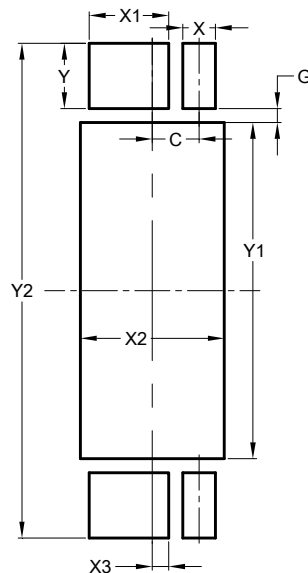
V-DFN2050-4



V-DFN2050-4			
Dim	Min	Max	Typ
A	0.75	0.85	0.80
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
b1	0.70	0.80	0.75
D	1.90	2.10	2.00
D2	1.40	1.60	1.50
E	4.90	5.10	5.00
E2	3.46	3.66	3.56
e	0.50 BSC		
L	0.35	0.65	0.50
Z	-	-	0.375
All Dimensions in mm			

## Suggested Pad Layout

V-DFN2050-4



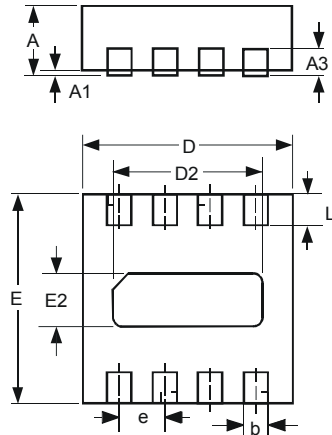
Dimensions	Value (in mm)
C	0.500
G	0.150
X	0.350
X1	0.850
X2	1.540
X3	0.175
Y	0.700
Y1	3.600
Y2	5.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

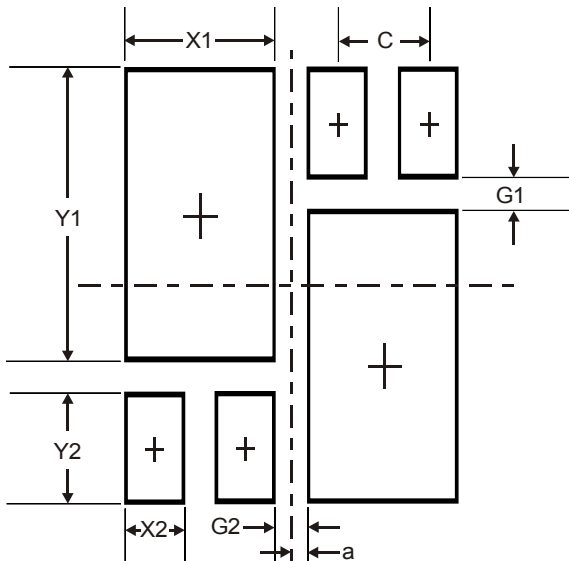
U-DFN2116-8



U-DFN2116-8			
Dim	Min	Max	Typ
D	2.05	2.175	2.10
E	1.55	1.675	1.60
D2	1.60	1.80	1.70
E2	0.30	0.50	0.40
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	—	—	0.13
b	0.20	0.30	0.25
L	0.275	0.375	0.325
e	—	—	0.50
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2116-8



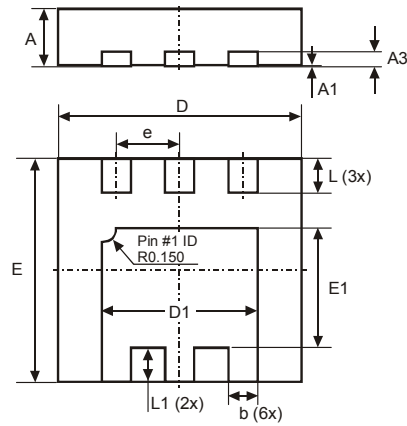
Dimensions	Value (in mm)
G1	0.15
G2	0.20
X1	0.65
X2	0.25
Y1	1.25
Y2	0.50
C	0.40
a	0.10

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

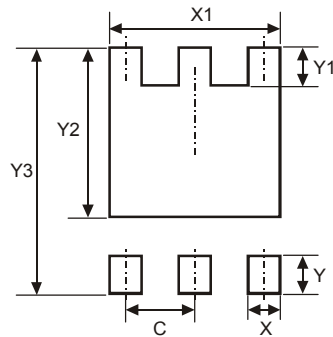
U-DFN2523-6



U-DFN2523-6			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.152
b	0.25	0.35	0.30
D	2.45	2.55	2.50
D1	1.55	1.65	1.60
e	-	-	0.65
E	2.25	2.35	2.30
E1	1.18	1.28	1.23
L	0.30	0.40	0.35
L1	0.30	0.40	0.35
All Dimensions in mm			

## Suggested Pad Layout

U-DFN2523-6

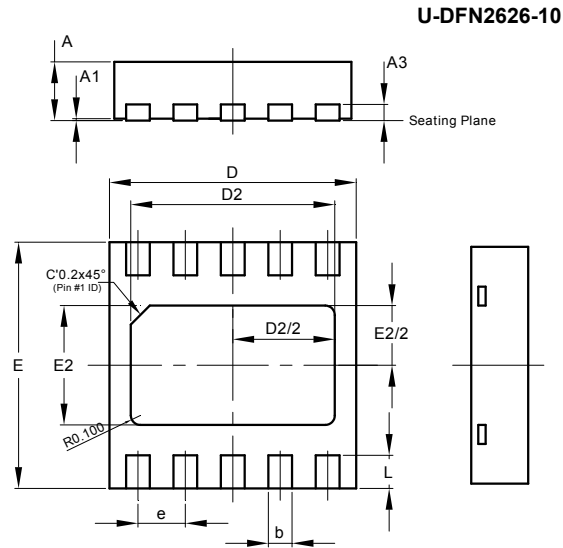


Dimensions	Value (in mm)
C	0.650
X	0.400
X1	1.700
Y	0.650
Y1	0.450
Y2	1.830
Y3	2.700

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

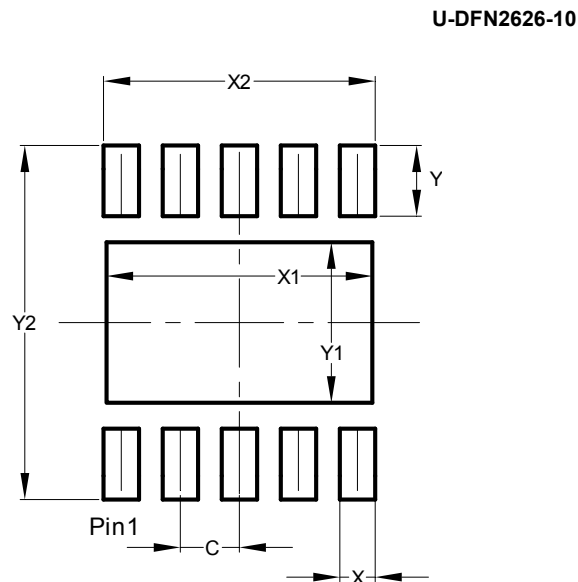
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-DFN2626-10			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.03
A3	-	-	0.15
b	0.20	0.30	0.25
D	2.55	2.675	2.60
D2	2.05	2.25	2.15
E	2.55	2.675	2.60
E2	1.16	1.36	1.26
e	0.50 BSC		
L	0.30	0.40	0.35
All Dimensions in mm			

## Suggested Pad Layout



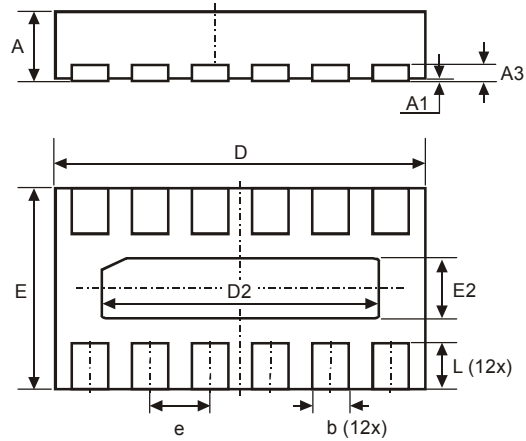
Dimensions	Value (in mm)
C	0.500
X	0.300
X1	2.250
X2	2.300
Y	0.600
Y1	1.360
Y2	3.000

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

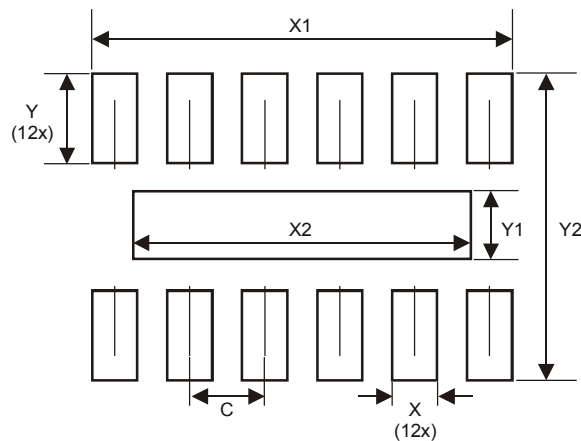
U-DFN3016-12



U-DFN3016-12			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	2.95	3.075	3.00
D2	2.10	2.30	2.20
e	-	-	0.50
E	1.55	1.675	1.60
E2	0.30	0.50	0.40
L	0.28	0.38	0.33
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3016-12

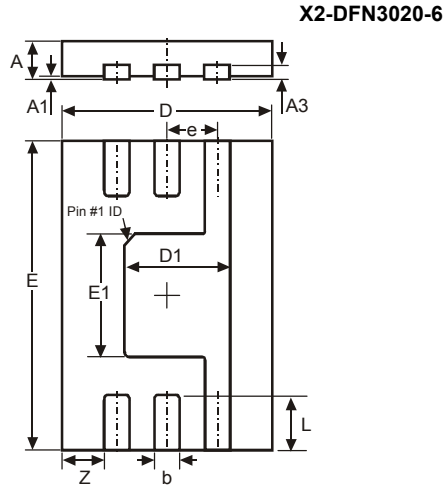


Dimensions	Value (in mm)
C	0.500
X	0.300
X1	2.800
X2	2.250
Y	0.600
Y1	0.450
Y2	2.050

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

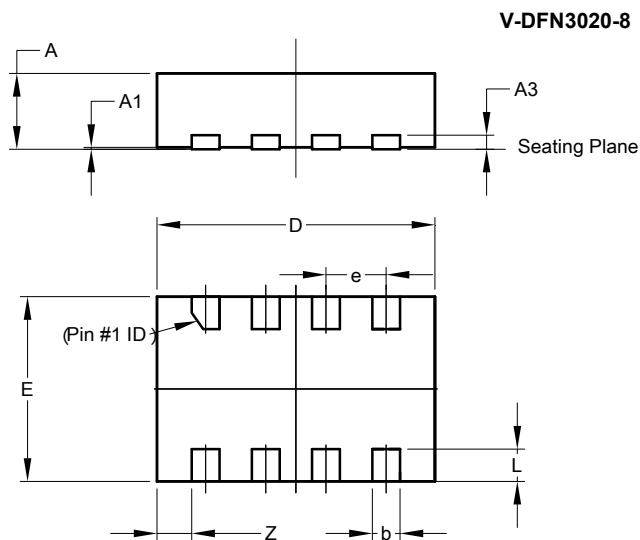


X2-DFN3020-6			
Dim	Min	Max	Typ
A	-	0.40	-
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	1.95	2.075	2.00
D1	0.942	1.142	1.042
e	-	-	0.50
E	2.95	3.075	3.00
E1	1.124	1.324	1.224
L	0.50	0.60	0.55
Z	-	-	0.375
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

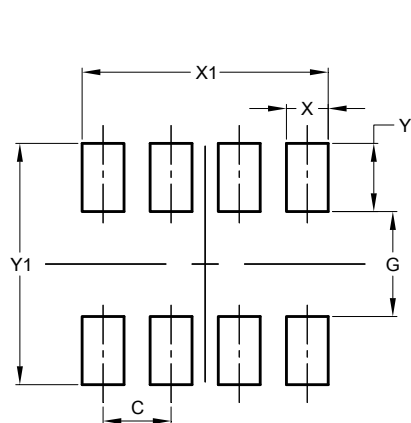
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



V-DFN3020-8			
Dim	Min	Max	Typ
A	0.77	0.83	0.80
A1	0	0.05	0.02
A3	-	-	0.203
b	0.25	0.35	0.30
D	2.95	3.05	3.00
e	-	-	0.65
E	1.95	2.05	2.00
L	0.30	0.40	0.35
Z	-	-	0.375
All Dimensions in mm			

## Suggested Pad Layout

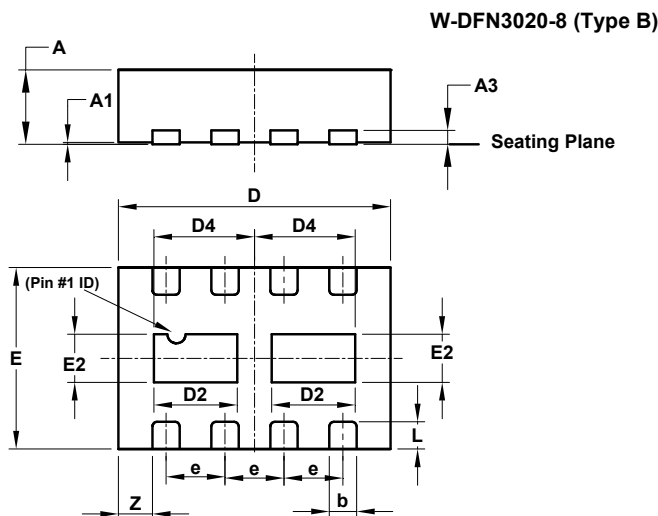


Dimensions	Value (in mm)
C	0.650
G	1.000
X	0.400
X1	2.350
Y	0.650
Y1	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

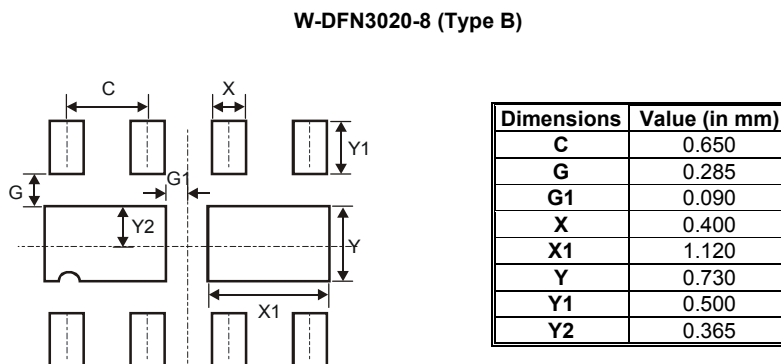
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



W-DFN3020-8 Type B			
Dim	Min	Max	Typ
A	0.77	0.83	0.80
A1	0	0.05	0.02
A3	-	-	0.15
b	0.25	0.35	0.30
D	2.95	3.075	3.00
D2	0.82	1.02	0.92
D4	1.01	1.21	1.11
e	-	-	0.65
E	1.95	2.075	2.00
E2	0.43	0.63	0.53
L	0.25	0.35	0.30
Z	-	-	0.375
All Dimensions in mm			

## Suggested Pad Layout



Dimensions	Value (in mm)
C	0.650
G	0.285
G1	0.090
X	0.400
X1	1.120
Y	0.730
Y1	0.500
Y2	0.365

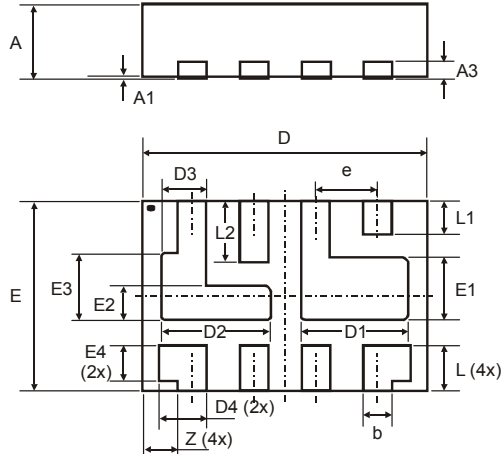
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

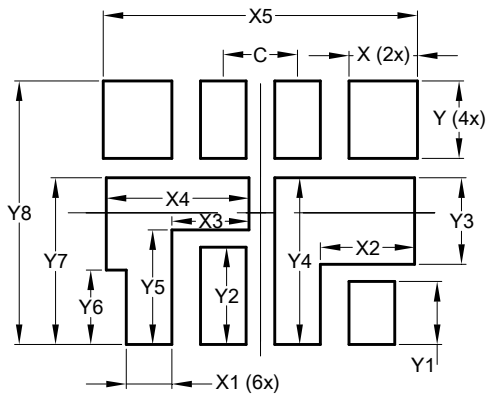
W-DFN3020-8 (Type K)



W-DFN3020-8 Type K							
Dim	Min	Max	Typ	Dim	Min	Max	Typ
A	0.77	0.83	0.80	E1	0.56	0.76	0.66
A1	0.00	0.05	0.02	E2	0.26	0.46	0.36
A3	-	-	0.15	E3	0.605	0.805	0.705
b	0.25	0.35	0.30	E4	0.275	0.475	0.375
D	2.95	3.05	3.00	L	0.425	0.525	0.475
D1	1.025	1.225	1.125	L1	0.30	0.40	0.35
D2	1.05	1.25	1.15	L2	0.60	0.70	0.65
D3	0.375	0.575	0.475	Z	-	-	0.375
D4	0.40	0.60	0.50	e	-	-	0.65
E	1.95	2.05	2.00				
All Dimensions in mm							

## Suggested Pad Layout

W-DFN3020-8 (Type K)



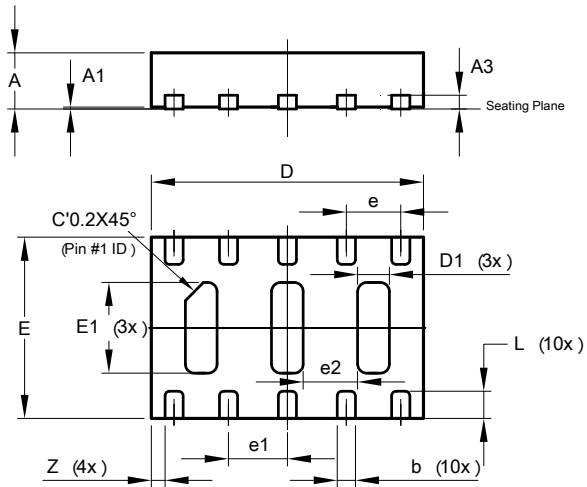
Dimensions	Value (in mm)
C	0.650
X	0.600
X1	0.400
X2	0.825
X3	0.675
X4	1.250
X5	2.750
Y	0.675
Y1	0.550
Y2	0.850
Y3	0.755
Y4	1.455
Y5	1.000
Y6	0.650
Y7	1.455
Y8	2.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

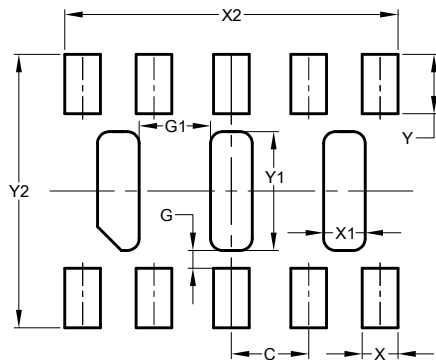
U-DFN3020-10



U-DFN3020-10			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.15	0.25	0.20
D	2.95	3.05	3.00
D1	0.25	0.45	0.35
E	1.95	2.05	2.00
E1	0.90	1.10	1.00
e	-	-	0.60
e1	-	-	0.65
e2	0.50	0.70	0.60
L	0.25	0.35	0.30
Z	-	-	0.15
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3020-10



Dimensions	Value (in mm)
C	0.650
G	0.150
G1	0.600
X	0.300
X1	0.350
X2	2.800
Y	0.500
Y1	1.000
Y2	2.300

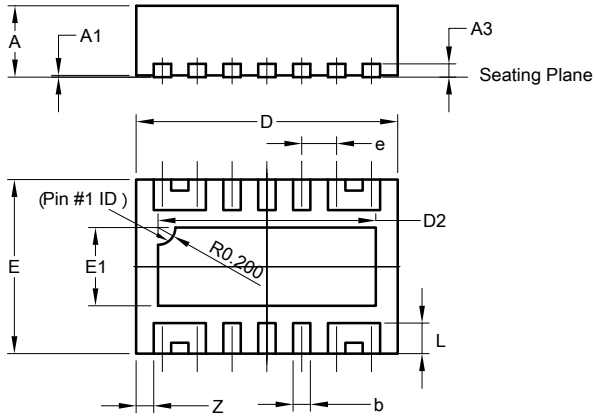
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

V-DFN3020-14



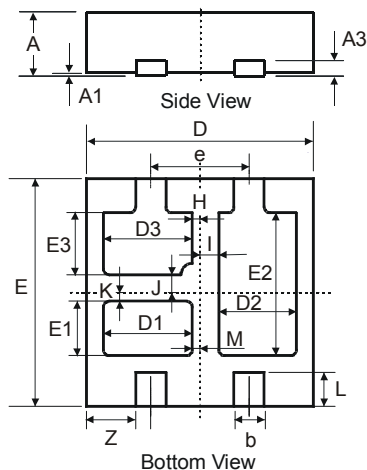
V-DFN3020-14			
Dim	Min	Max	Typ
A	0.77	0.83	0.80
A1	0	0.05	0.02
A3	-	-	0.15
b	0.15	0.25	0.20
D	2.95	3.05	3.00
D2	2.40	2.60	2.50
E	1.95	2.05	2.00
E1	0.80	1.00	0.90
e	-	-	0.40
L	0.30	0.40	0.35
Z	-	-	0.20
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

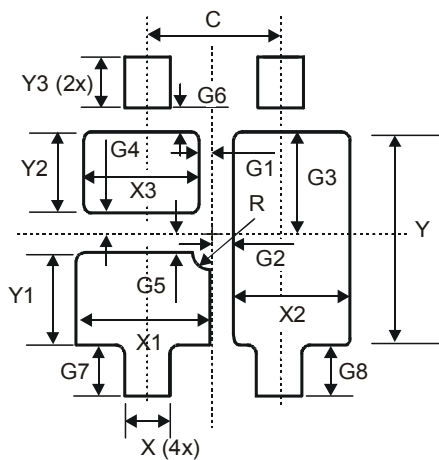
U-DFN3030-4



U-DFN3030-4							
Dim	Min	Max	Typ	Dim	Min	Max	Typ
A	0.57	0.63	0.60	E1	0.615	0.815	0.715
A1	0	0.05	0.02	E2	1.78	1.98	1.88
A3	-	-	0.15	E3	0.715	0.915	0.815
B	0.35	0.45	0.40	H	0.05	0.15	0.10
D	2.90	3.10	3.00	I	0.20	0.30	0.25
D1	1.075	1.275	1.175	J	0.185	0.285	0.235
D2	0.925	1.125	1.025	K	0.065	0.165	0.115
D3	1.075	1.275	1.175	L	0.30	0.60	0.45
E	2.90	3.10	3.00	M	0.05	0.15	0.10
e	-	-	1.30	Z	-	-	0.65
All Dimensions in mm							

## Suggested Pad Layout

U-DFN3030-4



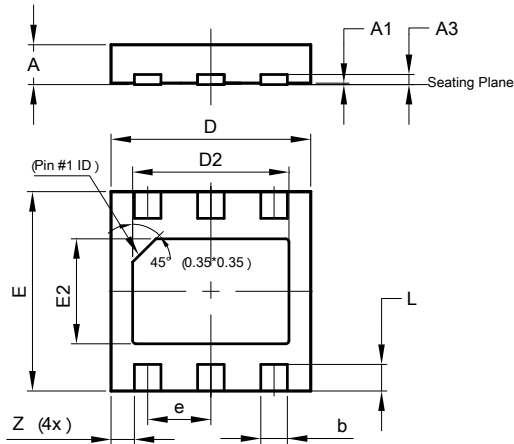
Dimensions	Value (in mm)
C	1.300
G1	0.100
G2	0.150
G3	0.830
G4	0.115
G5	0.135
G6	0.170
G7	0.500
G8	0.500
R	0.150
X	0.500
X1	1.375
X2	1.225
X3	1.175
Y	1.980
Y1	1.015
Y2	0.715
Y3	0.650

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

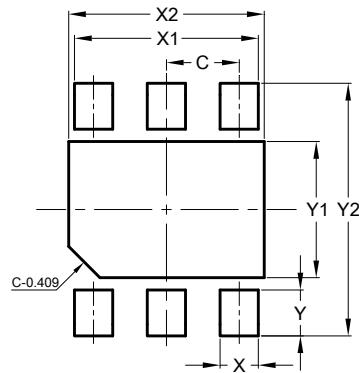
U-DFN3030-6



U-DFN3030-6			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.35	0.45	0.40
D	2.95	3.05	3.00
D2	2.25	2.45	2.35
E	2.95	3.05	3.00
E2	1.48	1.68	1.58
e	-	-	0.95
L	0.35	0.45	0.40
Z	-	-	0.35
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3030-6



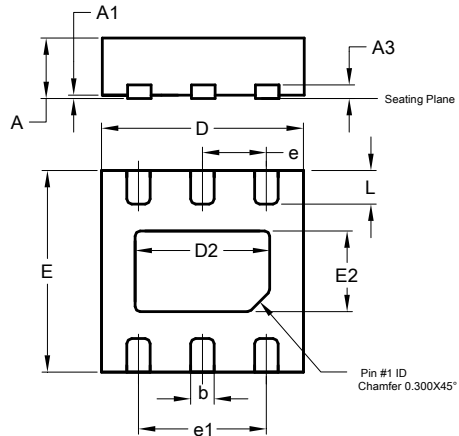
Dimensions	Value (in mm)
C	0.950
X	0.500
X1	2.400
X2	2.550
Y	0.600
Y1	1.780
Y2	3.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

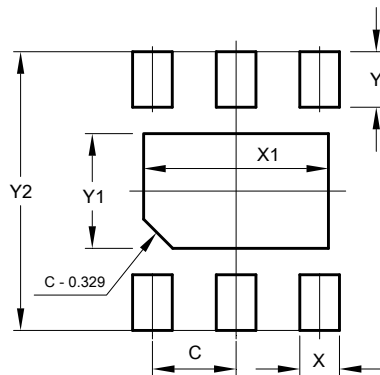
V-DFN3030-6



V-DFN3030-6			
Dim	Min	Max	Typ
A	0.80	0.90	0.85
A1	0	0.05	-
A3	-	-	0.203
b	0.30	0.40	0.35
D	2.95	3.05	3.00
D2	1.95	2.05	2.00
E	2.95	3.05	3.00
E2	1.15	1.25	1.20
e	-	-	0.95
e1	-	-	1.90
L	0.45	0.55	0.50
All Dimensions in mm			

## Suggested Pad Layout

V-DFN3030-6



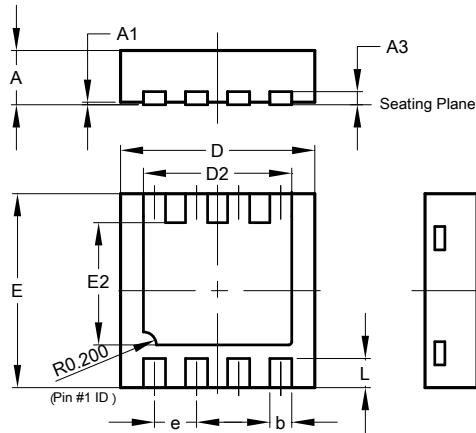
Dimensions	Value (in mm)
C	0.950
X	0.450
X1	2.100
Y	0.630
Y1	1.300
Y2	3.160

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

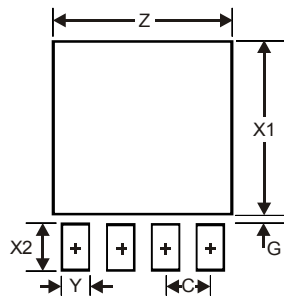
U-DFN3030-8



U-DFN3030-8			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.29	0.39	0.34
D	2.90	3.10	3.00
D2	2.19	2.39	2.29
e	-	-	0.65
E	2.90	3.10	3.00
E2	1.64	1.84	1.74
L	0.30	0.60	0.45
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3030-8



Dimensions	Value (in mm)
Z	2.59
G	0.11
X1	2.49
X2	0.65
Y	0.39
C	0.65

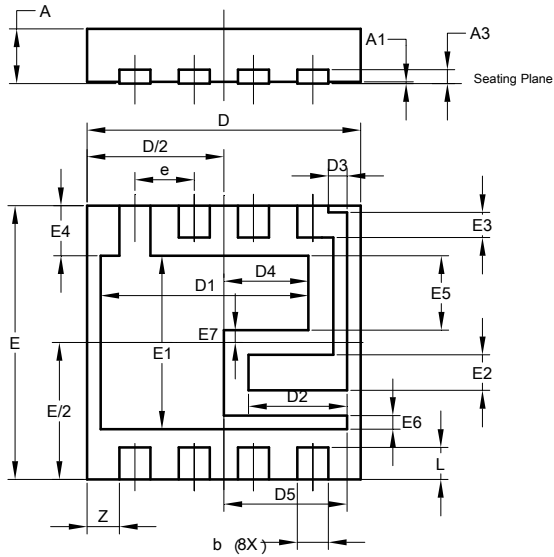
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

U-DFN3030-8 (Type D)



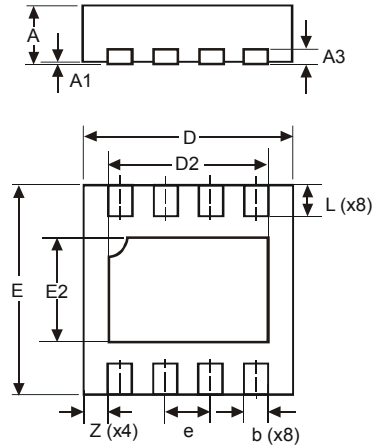
U-DFN3030-8 Type D							
Dim	Min	Max	Typ	Dim	Min	Max	Typ
A	0.570	0.630	0.600	E	2.950	3.075	3.000
A1	0	0.050	0.020	E1	1.800	2.000	1.900
A3	-	-	0.150	E2	0.290	0.490	0.390
b	0.290	0.390	0.340	E3	0.175	0.375	0.275
D	2.950	3.075	3.000	E4	-	-	0.550
D1	2.175	2.375	2.275	E5	-	-	0.815
D2	0.980	1.180	1.080	E6	-	-	0.150
D3	0.105	0.305	0.205	E7	-	-	0.135
D4	-	-	0.925	L	0.300	0.40	0.350
D5	-	-	1.330	Z	-	-	0.355
e	-	-	0.650				
All Dimensions in mm							

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

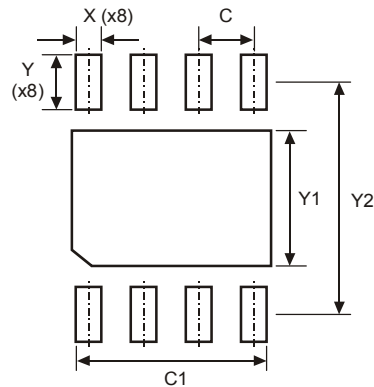
U-DFN3030-8 (Type E)



U-DFN3030-8 Type E			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	2.95	3.05	3.00
D2	2.15	2.35	2.25
E	2.95	3.05	3.00
e	-	-	0.65
E2	1.40	1.60	1.50
L	0.30	0.60	0.45
Z	-	-	0.40
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3030-8 (Type E)

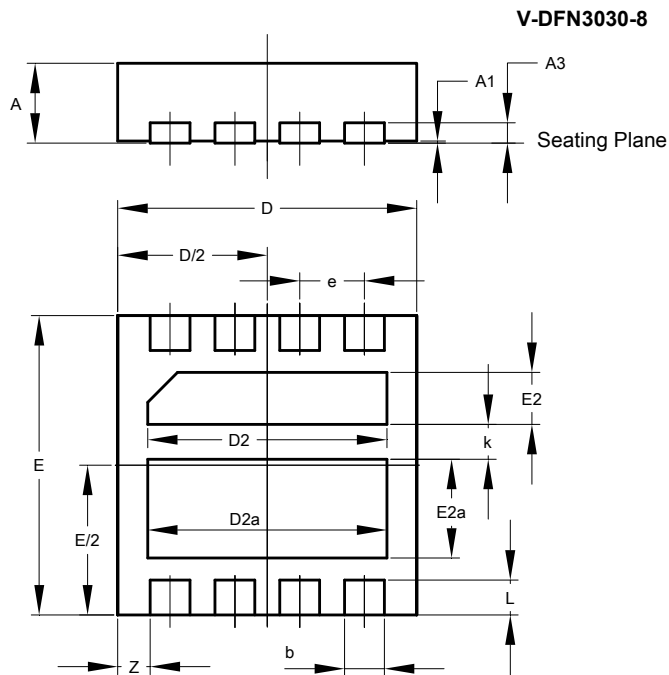


Dimensions	Value (in mm)
C	0.65
C1	2.35
X	0.30
Y	0.65
Y1	1.60
Y2	2.75

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

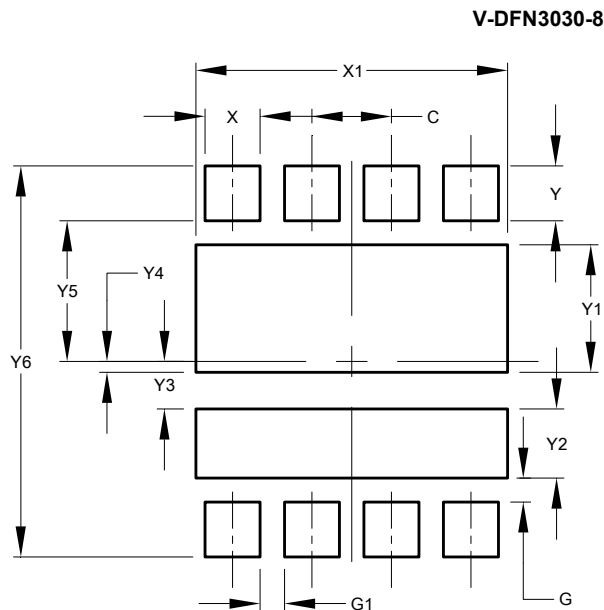
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



V-DFN3030-8			
Dim	Min	Max	Typ
A	0.77	0.83	0.80
A1	0	0.05	0.02
A3	0.20BSC		
b	0.35	0.45	0.40
D	2.95	3.050	3.00
D2	2.30	2.50	2.40
D2a	2.30	2.50	2.40
E	2.95	3.050	3.00
E2	0.42	0.62	0.52
E2a	0.89	0.109	0.99
e	0.65BSC		
k	-	-	0.35
L	0.30	0.40	0.35
z	0.325BSC		
All Dimensions in mm			

## Suggested Pad Layout



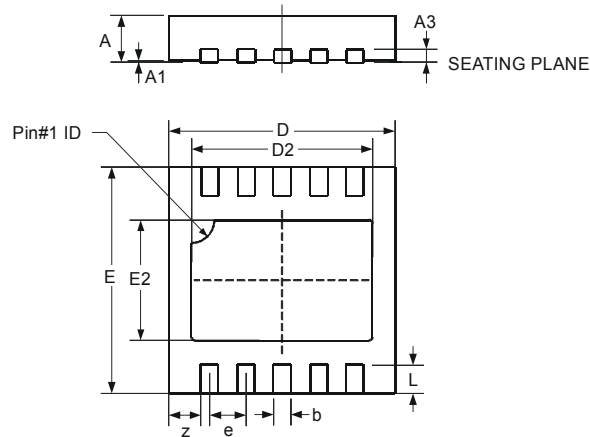
Dimensions	Value (in mm)
C	0.650
G	0.195
G1	0.200
X	0.450
X1	2.550
Y	0.450
Y1	1.044
Y2	0.566
Y3	0.389
Y4	0.089
Y5	1.150
Y6	3.200

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

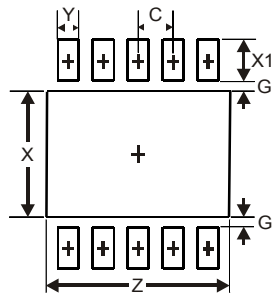
U-DFN3030-10



U-DFN3030-10			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	2.90	3.10	3.00
D2	2.30	2.50	2.40
e	-	-	0.50
E	2.90	3.10	3.00
E2	1.50	1.70	1.60
L	0.25	0.55	0.40
z	-	-	0.375
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3030-10



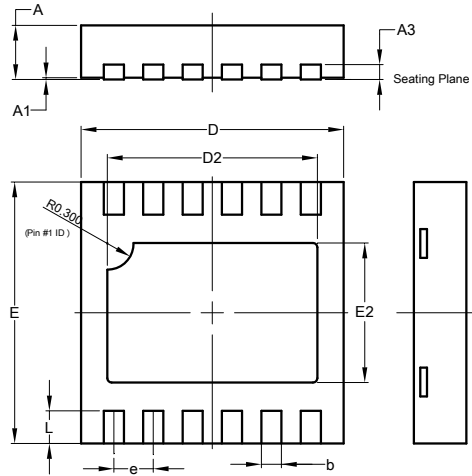
Dimensions	Value (in mm)
Z	2.60
G	0.15
X	1.80
X1	0.60
Y	0.30
C	0.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

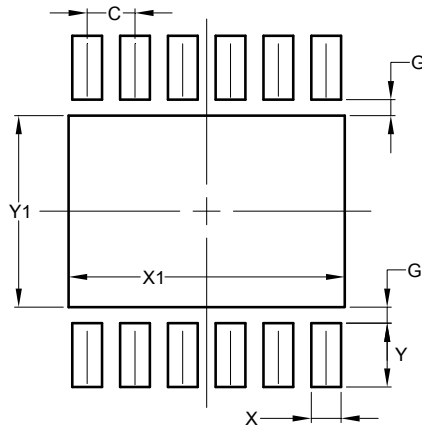
U-DFN3030-12



U-DFN3030-12			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.18	0.28	0.23
D	2.90	3.10	3.00
D2	2.30	2.50	2.40
e	-	-	0.45
E	2.90	3.10	3.00
E2	1.50	1.70	1.60
L	0.25	0.55	0.40
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3030-12

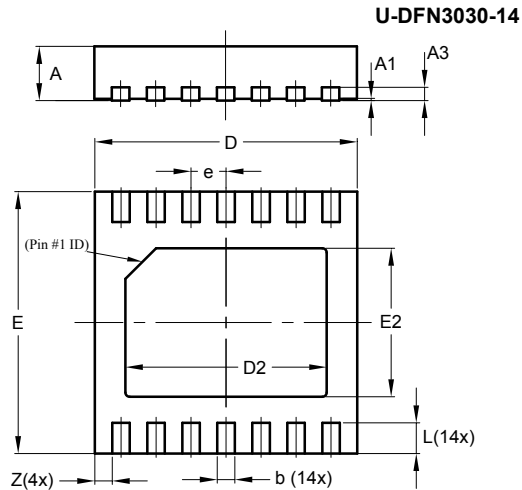


Dimensions	Value (in mm)
C	0.45
G	0.15
X	0.28
X1	2.60
Y	0.60
Y1	1.80

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

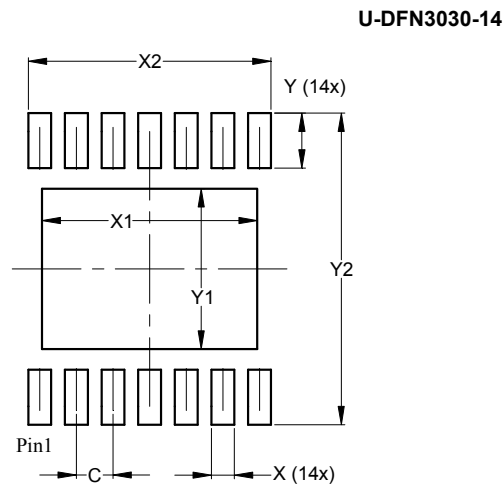
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



DFN3030-14			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.15	0.25	0.20
D	2.95	3.05	3.00
D2	2.20	2.40	2.30
E	2.95	3.05	3.00
E2	1.60	1.80	1.70
e	-	-	0.40
L	0.30	0.40	0.35
Z	-	-	0.20
All Dimensions in mm			

## Suggested Pad Layout



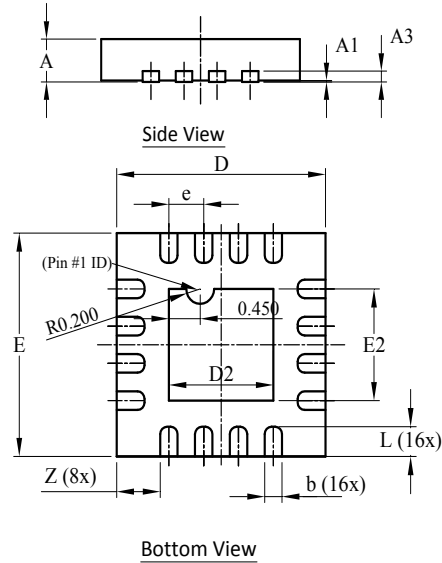
Dimensions	Value (in mm)
C	0.400
X	0.250
X1	2.350
X2	2.650
Y	0.600
Y1	1.750
Y2	3.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

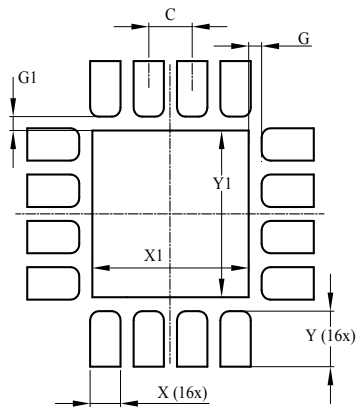
U-QFN3030-16 (Type B)



U-QFN3030-16 Type B			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.18	0.28	0.23
D	2.95	3.05	3.00
D2	1.40	1.60	1.50
E	2.95	3.05	3.00
E2	1.40	1.60	1.50
e	-	-	0.50
L	0.35	0.45	0.40
Z	-	-	0.625
All Dimensions in mm			

## Suggested Pad Layout

U-QFN3030-16 (Type B)



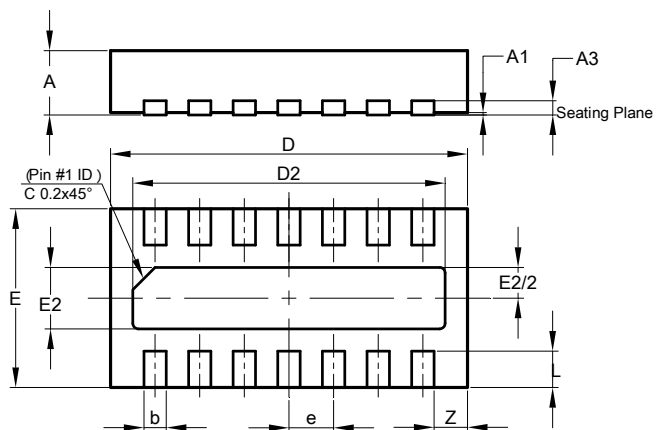
Dimensions	Value (in mm)
C	0.500
G	0.150
G1	0.150
X	0.350
X1	1.800
Y	0.600
Y1	1.800

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

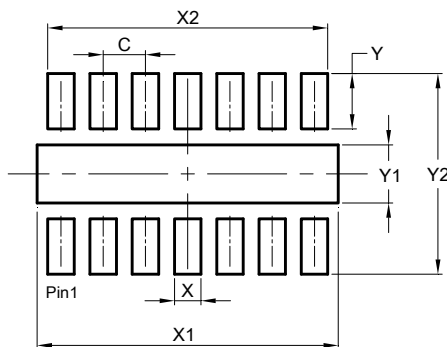
U-DFN3216-14



U-DFN3216-14			
Dim	Min	Max	Typ
A	0.545	0.605	0.575
A1	0	0.05	0.02
A3	-	-	0.127
b	0.15	0.25	0.20
D	3.15	3.275	3.20
D2	2.70	2.90	2.80
E	1.55	1.675	1.60
E2	0.45	0.65	0.55
e	-	-	0.40
L	0.275	0.375	0.325
Z	0.25	0.35	0.30
All Dimensions in mm			

## Suggested Pad Layout

U-DFN3216-14



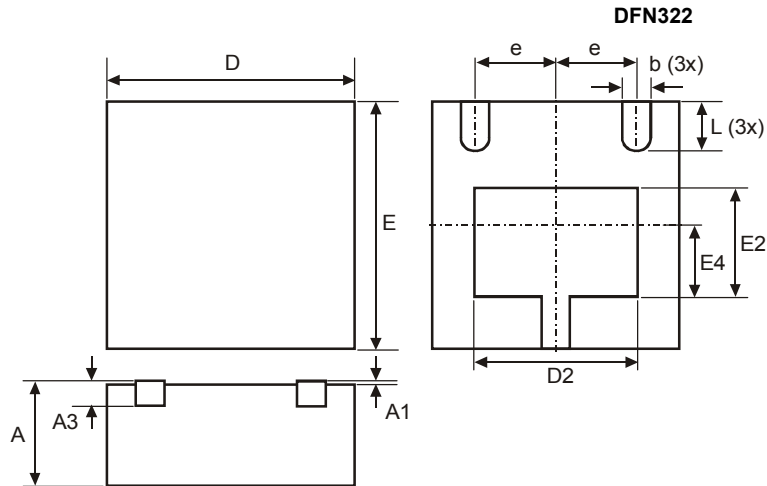
Dimensions	Value (in mm)
C	0.400
X	0.250
X1	2.850
X2	2.650
Y	0.525
Y1	0.550
Y2	1.900

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

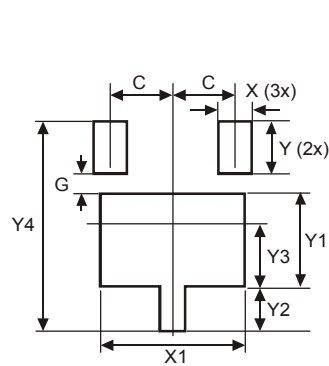


## Package Outline Dimensions



DFN322			
Dim	Min	Max	Typ
A	0.800	1.00	0.850
A	-	0.050	-
A3	0.153	0.253	0.203
b	0.180	0.300	0.230
D	1.900	2.100	2.000
D2	1.220	1.420	1.320
e	-	-	0.650
E	1.900	2.100	2.000
E2	0.780	0.990	0.880
E4	0.480	0.680	0.580
L	0.300	0.500	0.400
All Dimensions in mm			

## Suggested Pad Layout



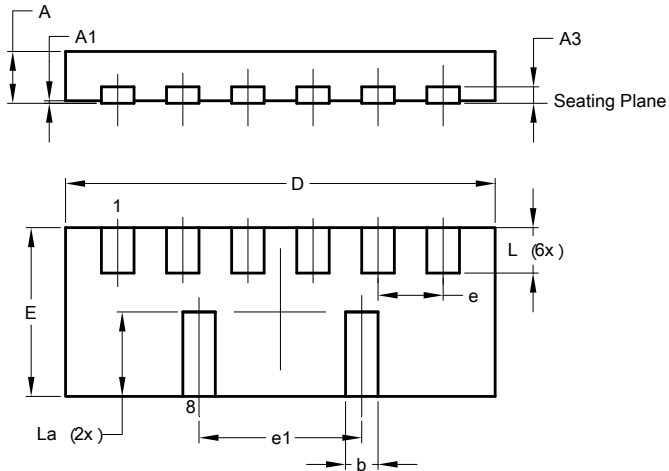
Dimensions	Value (in mm)
C	0.65
G	0.20
X	0.35
X1	1.52
Y	0.55
Y1	0.98
Y2	0.47
Y3	0.63
Y4	2.20

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

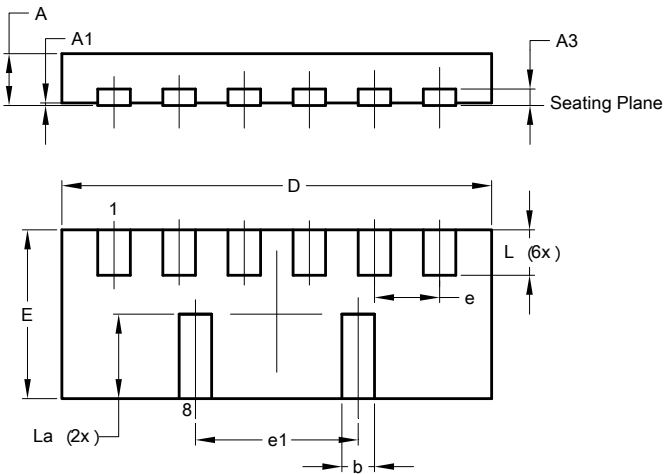
**X1-DFN3313-8**



X1-DFN3313-8			
Dim	Min	Max	Typ
A	0.37	0.48	0.42
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	3.25	3.38	3.30
E	1.25	1.38	1.30
e	0.50 BSC		
e1	1.25 BSC		
L	0.30	0.43	0.38
La	0.57	0.70	0.65
All Dimensions in mm			

## Suggested Pad Layout

**X1-DFN3313-8**



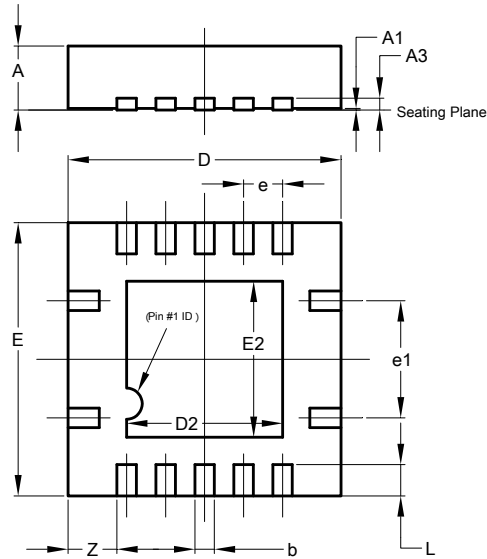
X1-DFN3313-8			
Dim	Min	Max	Typ
A	0.37	0.48	0.42
A1	0	0.05	0.02
A3	-	-	0.13
b	0.20	0.30	0.25
D	3.25	3.38	3.30
E	1.25	1.38	1.30
e	0.50 BSC		
e1	1.25 BSC		
L	0.30	0.43	0.38
La	0.57	0.70	0.65
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

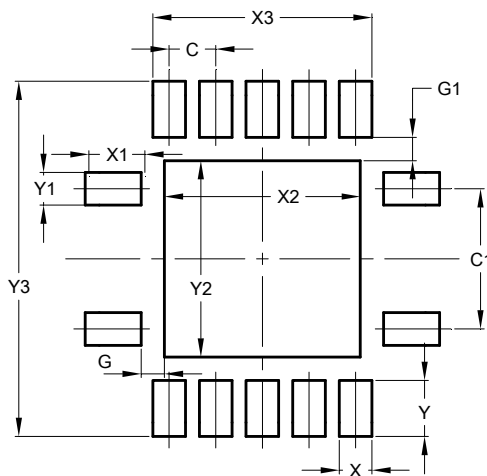
V-QFN3535-14



V-QFN3535-14			
Dim	Min	Max	Typ
A	0.75	0.85	0.80
A1	0.00	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	3.45	3.55	3.50
D2	1.90	2.10	2.00
E	3.45	3.55	3.50
E2	1.90	2.10	2.00
e	-	-	0.50
e1	-	-	1.50
L	0.35	0.45	0.40
Z	-	-	0.625
All Dimensions in mm			

## Suggested Pad Layout

V-QFN3535-14



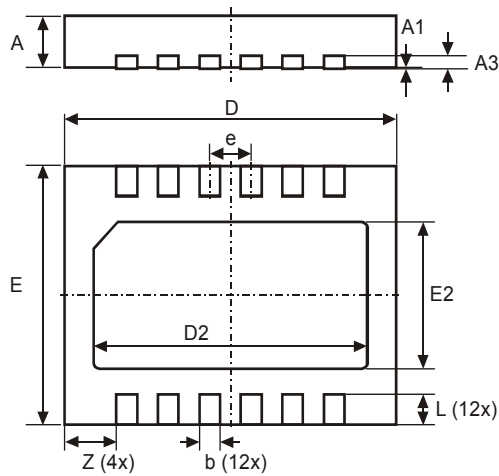
Dimensions	Value (in mm)
C	0.500
C1	1.500
G	0.250
G1	0.250
X	0.350
X1	0.600
X2	2.100
X3	2.350
Y	0.600
Y1	0.350
Y2	2.100
Y3	3.800

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

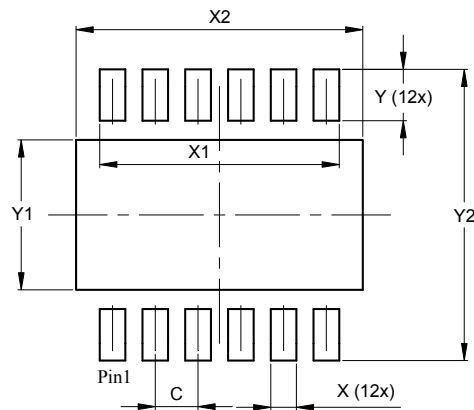
U-DFN4030-12



U-DFN4030-12			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	3.95	4.05	4.00
D2	3.20	3.40	3.30
e	-	-	0.50
E	2.95	3.05	3.00
E2	1.60	1.80	1.70
L	0.30	0.40	0.35
Z	-	-	0.625
All Dimensions in mm			

## Suggested Pad Layout

U-DFN4030-12



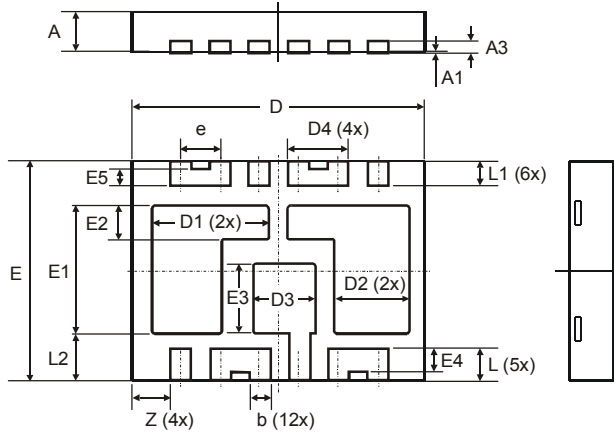
Dimensions	Value (in mm)
C	0.500
X	0.300
X1	2.800
X2	3.350
Y	0.600
Y1	1.750
Y2	3.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

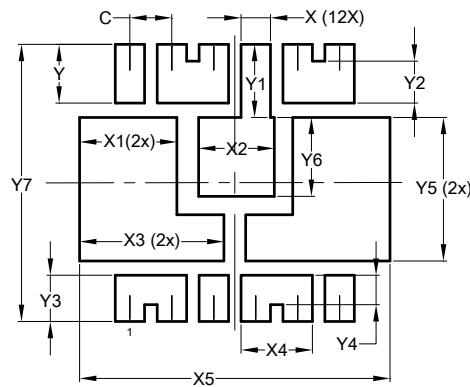
U-DFN4030-12 (Type B)



U-DFN4030-12 Type B							
Dim	Min	Max	Typ	Dim	Min	Max	Typ
A	0.55	0.65	0.60	e	-	-	0.50
A1	0.00	0.05	0.02	E1	1.51	1.71	1.61
A3	-	-	0.15	E2	0.35	0.55	0.45
B	0.20	0.30	0.25	E3	0.74	0.94	0.84
D	3.95	4.05	4.00	E4	0.30	0.50	0.40
D1	1.52	1.72	1.62	E5	0.15	0.35	0.25
D2	0.96	1.16	1.06	L	0.45	0.55	0.50
D3	0.70	0.90	0.80	L1	0.30	0.40	0.35
D4	0.65	0.85	0.75	L2	0.72	0.82	0.77
E	2.95	3.05	3.00	Z	-	-	0.625
All Dimensions in mm							

## Suggested Pad Layout

U-DFN4030-12 (Type B)



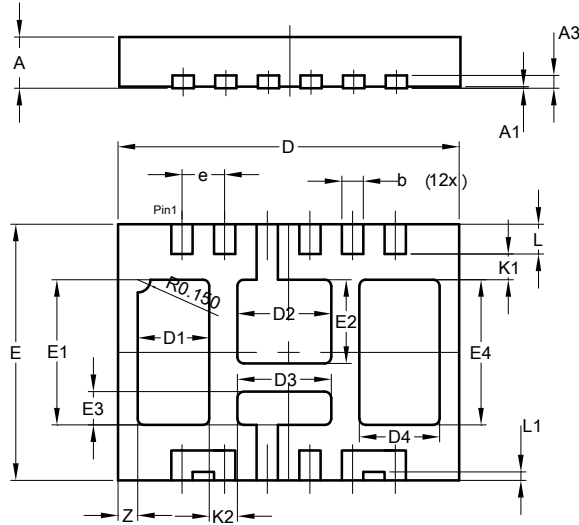
Dimensions	Value (in mm)
C	0.500
X	0.350
X1	1.160
X2	0.900
X3	1.720
X4	0.850
X5	3.700
Y	0.700
Y1	0.870
Y2	0.500
Y3	0.550
Y4	0.350
Y5	1.710
Y6	0.940
Y7	3.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

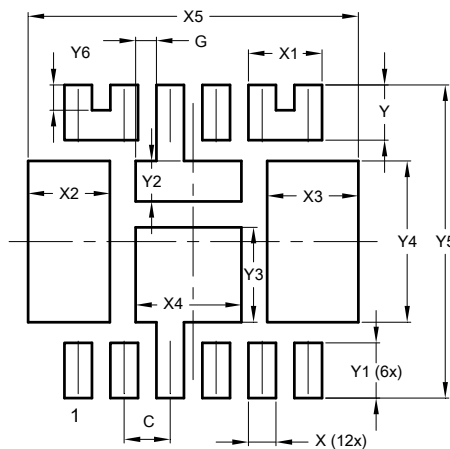
U-DFN4030-12 (Type C)



U-DFN4030-12 Type C							
Dim	Min	Max	Typ	Dim	Min	Max	Typ
A	0.57	0.63	0.60	E1	1.60	1.80	1.70
A1	0	0.05	0.02	E2	0.88	1.08	0.98
A3	—	—	0.015	E3	0.29	0.49	0.39
B	0.20	0.30	0.25	E4	1.60	1.80	1.70
D	3.95	4.05	4.00	e	—	—	0.50
D1	0.74	0.94	0.84	L	0.30	0.40	0.35
D2	1.00	1.20	1.10	L1	0.05	0.15	0.10
D3	1.00	1.20	1.10	K1	—	—	0.30
D4	0.84	1.04	0.94	K2	—	—	0.33
E	2.95	3.05	3.00	Z	—	—	0.23
All Dimensions in mm							

## Suggested Pad Layout

U-DFN4030-12 (Type C)



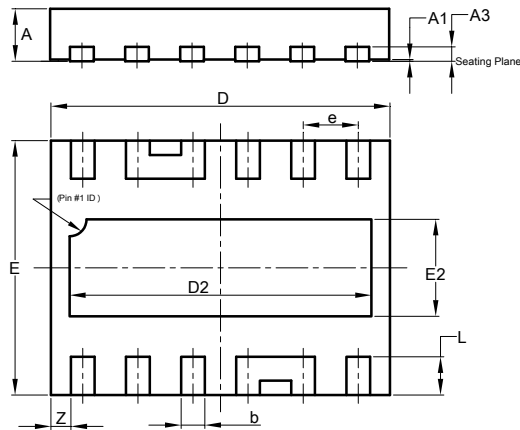
Dimensions	Value (in mm)
C	0.500
G	0.225
X	0.300
X1	0.800
X2	0.890
X3	0.990
X4	1.150
X5	3.590
Y	0.600
Y1	0.600
Y2	0.440
Y3	1.030
Y4	1.750
Y5	3.400
Y6	0.275

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

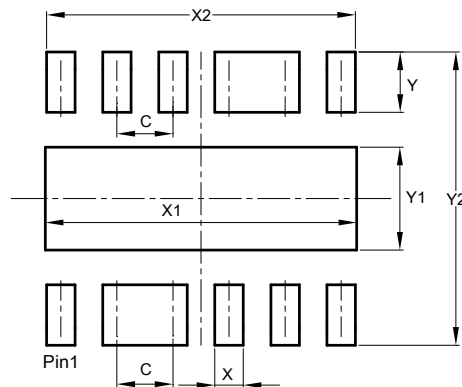
U-DFN4030-12 (Type D)



U-DFN4030-12 Type D			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.23	0.33	0.28
D	3.95	4.05	4.00
D2	3.46	3.66	3.56
E	2.95	3.05	3.00
E2	1.043	1.243	1.143
e	-	-	0.65
L	0.40	0.50	0.45
Z	-	-	0.235
All Dimensions in mm			

## Suggested Pad Layout

U-DFN4030-12 (Type D)



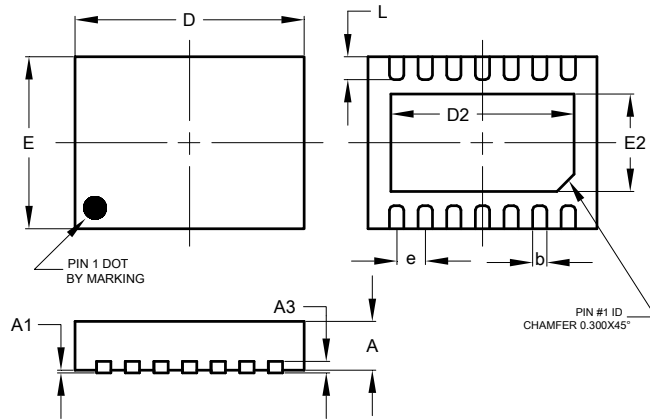
Dimensions	Value (in mm)
C	0.650
X	0.330
X1	3.610
X2	3.580
Y	0.700
Y1	1.193
Y2	3.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

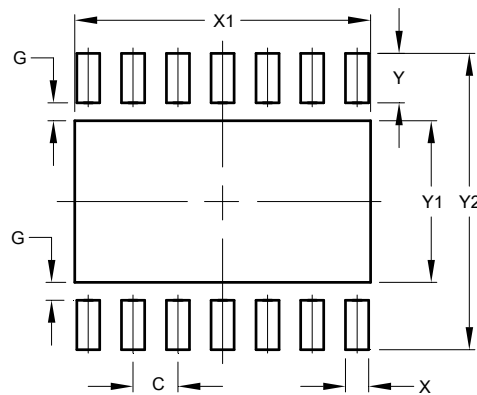
V-DFN4030-14



V-DFN4030-14			
Dim	Min	Max	Typ
A	0.80	0.90	0.85
A1	0	0.05	0.02
A3	-	-	0.203
b	0.20	0.30	0.25
D	3.95	4.05	4.00
D2	3.15	3.25	3.20
E	2.95	3.05	3.00
E2	1.65	1.75	1.70
e	-	-	0.50
L	0.35	0.45	0.40
All Dimensions in mm			

## Suggested Pad Layout

V-DFN4030-14



Dimensions	Value (in mm)
C	0.50
G	0.20
X	0.30
X1	3.30
Y	0.55
Y1	1.80
Y2	3.30

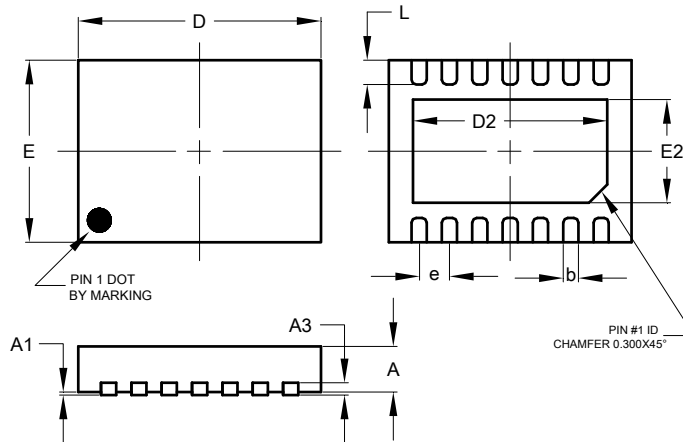
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

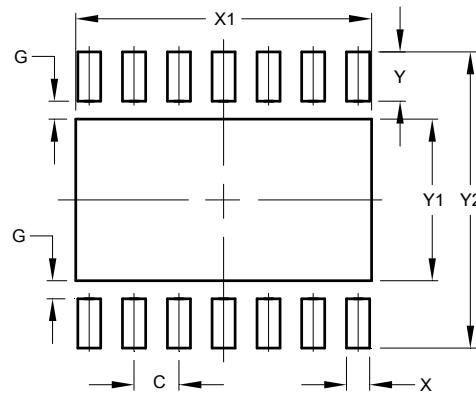
W-DFN4030-14



W-DFN4030-14			
Dim	Min	Max	Typ
A	0.70	0.80	0.75
A1	0	0.05	0.02
A3	-	-	0.203
b	0.20	0.30	0.25
D	3.95	4.05	4.00
D2	3.15	3.25	3.20
E	2.95	3.05	3.00
E2	1.65	1.75	1.70
e	-	-	0.50
L	0.35	0.45	0.40
All Dimensions in mm			

## Suggested Pad Layout

W-DFN4030-14

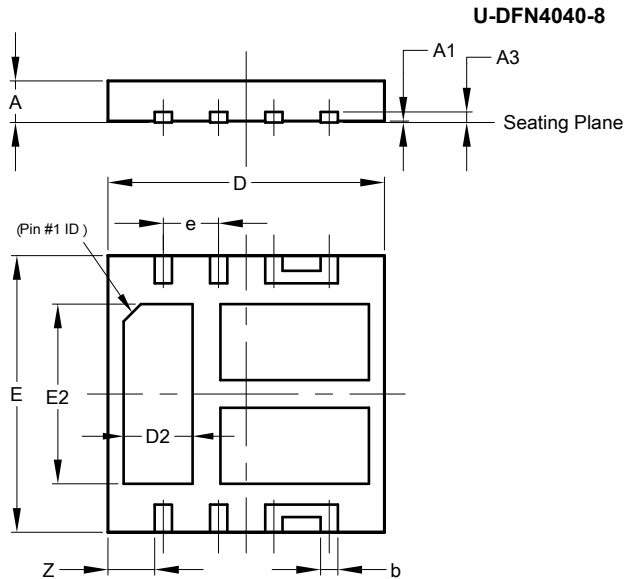


Dimensions	Value (in mm)
C	0.50
G	0.20
X	0.30
X1	3.30
Y	0.55
Y1	1.80
Y2	3.30

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

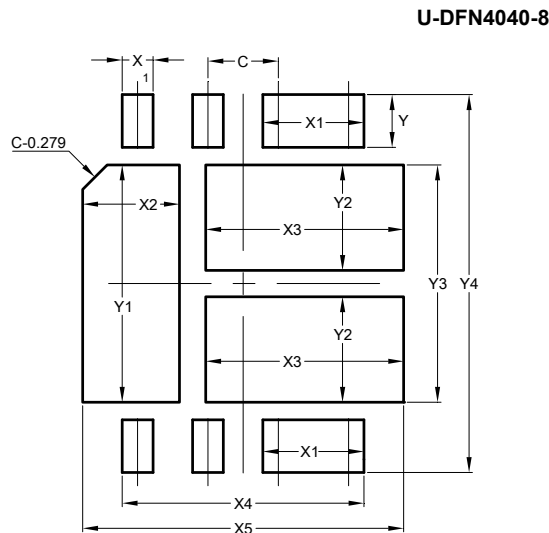
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-DFN4040-8			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	3.95	4.05	4.00
D1	2.05	2.25	2.15
D2	0.90	1.10	1.00
E	3.95	4.05	4.00
E1	1.00	1.20	1.10
E2	2.50	2.70	2.60
e	-	-	0.80
L	0.35	0.45	0.40
Z	-	-	0.675
All Dimensions in mm			

## Suggested Pad Layout



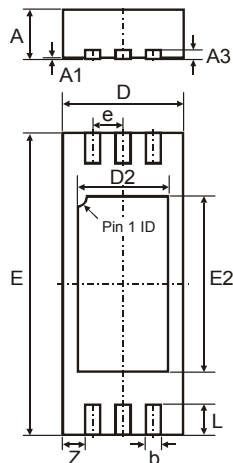
Dimensions	Value (in mm)
C	0.800
X	0.350
X1	1.150
X2	1.100
X3	2.250
X4	2.750
X5	3.650
Y	0.600
Y1	2.700
Y2	1.200
Y3	2.700
Y4	4.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

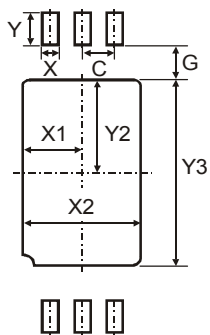
W-DFN5020-6



W-DFN5020-6			
Dim	Min	Max	Typ
A	0.75	0.85	0.80
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	1.90	2.10	2.00
D2	1.40	1.60	1.50
e	-	-	0.50
E	4.90	5.10	5.00
E2	2.80	3.00	2.90
L	0.35	0.65	0.50
Z	-	-	0.375
All Dimensions in mm			

## Suggested Pad Layout

W-DFN5020-6



Dimensions	Value (in mm)
C	0.50
G	0.35
X	0.35
X1	0.90
X2	1.80
Y	0.70
Y2	1.60
Y3	3.20

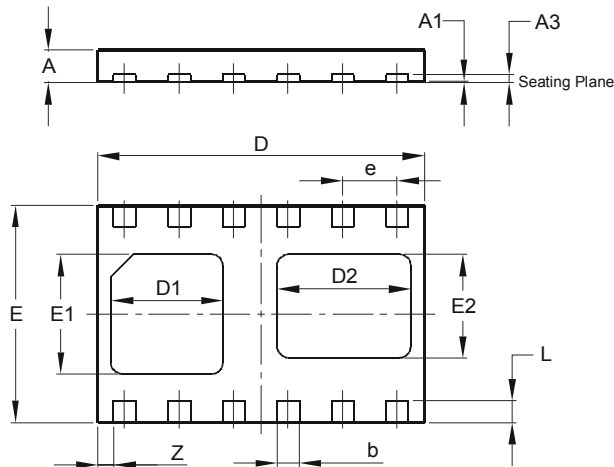
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

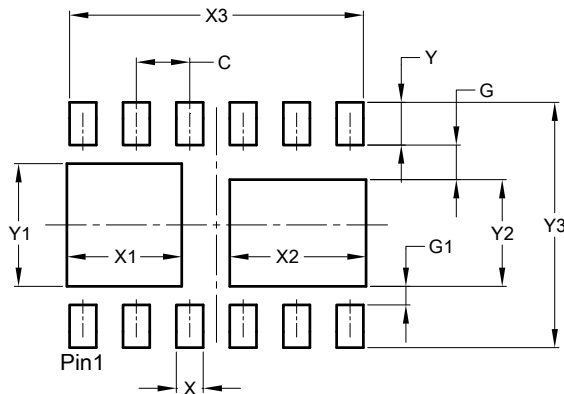
U-DFN6040-12



U-DFN6040-12			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.35	0.45	0.40
D	5.95	6.05	6.00
D1	1.95	2.15	2.05
D2	2.35	2.55	2.45
e	-	-	1.00
E	3.95	4.05	4.00
E1	2.10	2.30	2.20
E2	1.80	2.00	1.90
L	0.35	0.45	0.40
Z	-	-	0.30
All Dimensions in mm			

## Suggested Pad Layout

U-DFN6040-12



Dimensions	Value (in mm)
C	0.500
G	0.650
G1	0.350
X	0.250
X1	1.075
X2	1.275
X3	2.750
Y	0.400
Y1	1.150
Y2	1.000
Y3	2.300

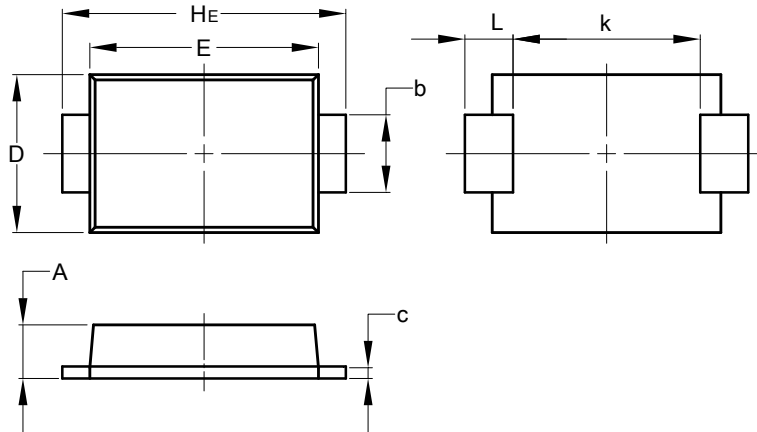
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

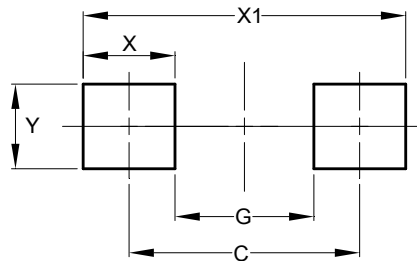
D-FLAT



D-FLAT		
Dim	Min	Max
A	0.90	1.10
b	1.25	1.65
c	0.10	0.40
D	2.25	2.95
E	3.95	4.60
k	2.80	-
HE	5.00	5.60
L	0.50	1.30
All Dimensions in mm		

## Suggested Pad Layout

D-FLAT



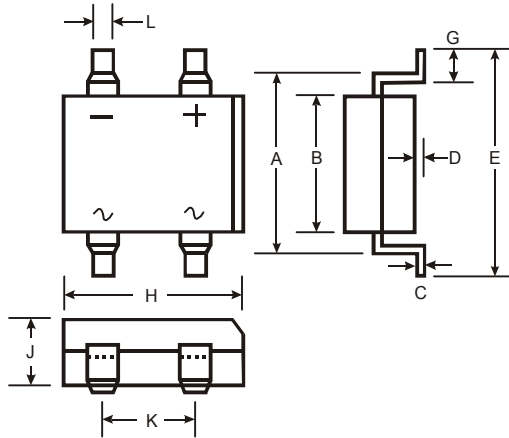
Dimensions	Value (in mm)
C	4.65
G	2.80
X	1.85
X1	6.50
Y	1.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

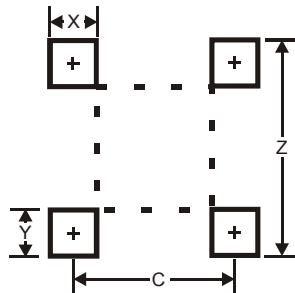
DF-S



DF-S		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	0.076	0.33
E	-	10.40
G	1.02	1.53
H	8.13	8.51
J	2.40	2.60
K	5.00	5.20
L	1.00	1.20
All Dimensions in mm		

## Suggested Pad Layout

DF-S



Dimensions	DF-S
Z	10.26
X	1.2
Y	1.52
C	5.2

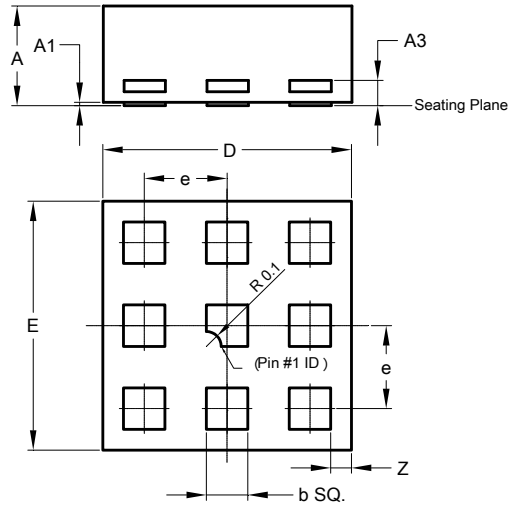
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

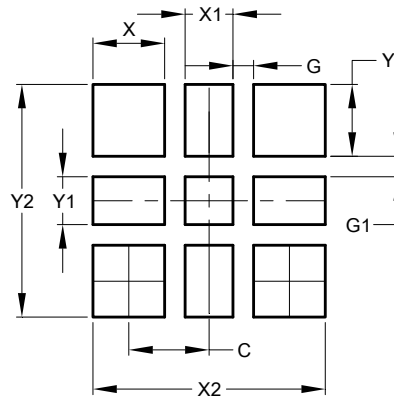
U-FLGA1515-9



U-FLGA1515-9			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	0.13 BSC		
b	0.20	0.30	0.25
D	1.45	1.55	1.50
E	1.45	1.55	1.50
e	0.50 BSC		
Z	0.125 BSC		
All Dimensions in mm			

## Suggested Pad Layout

U-FLGA1515-9

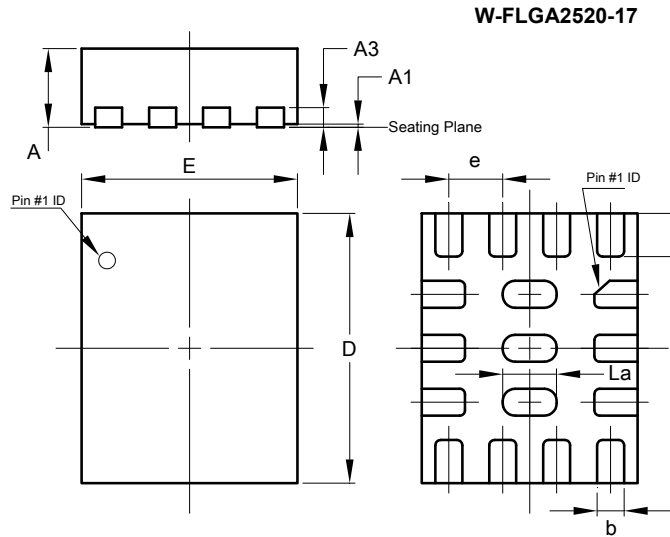


Dimensions	Value (in mm)
C	0.587
G	0.150
G1	0.150
X	0.525
X1	0.350
X2	1.700
Y	0.525
Y1	0.350
Y2	1.700

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

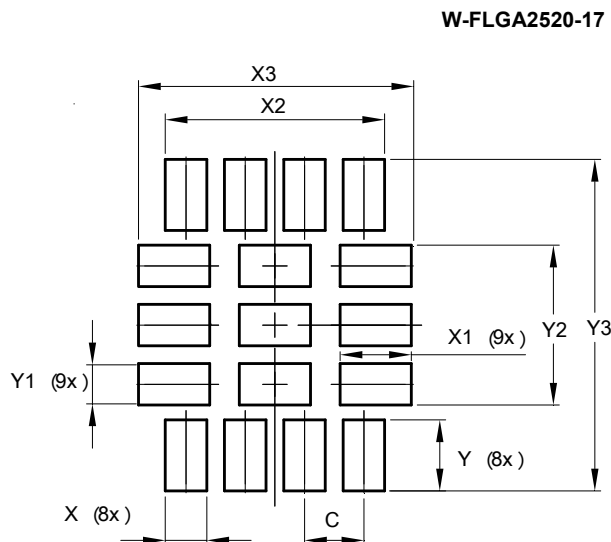
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



W-FLGA2520-17		
Dim	Min	Max
A	0.700	0.800
A1	0	0.050
A3	0.0203REF	
b	0.200	0.300
D	2.420	2.580
E	1.950	2.050
e	0.500TYP	
L	0.320	0.480
La	0.424	0.576
All Dimensions in mm		

## Suggested Pad Layout



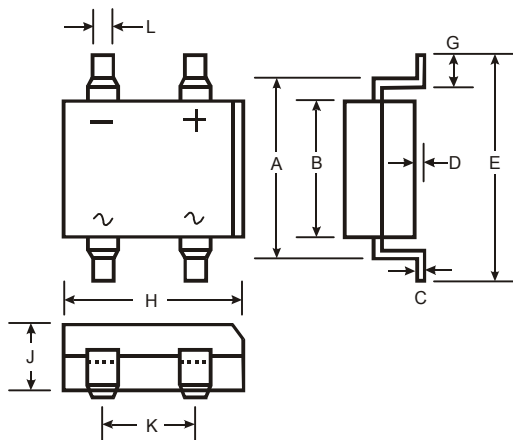
Dimensions	Value (in mm)
C	0.500
X	0.350
X1	0.600
X2	1.850
X3	2.320
Y	0.600
Y1	0.350
Y2	1.350
Y3	2.800

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

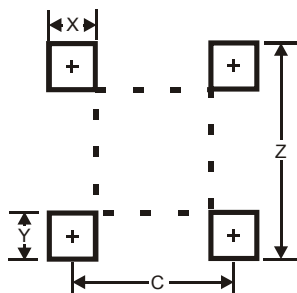
MiniDIP



MiniDIP		
Dim	Min	Max
A	5.43	5.75
B	3.6	4.0
C	0.15	0.35
D	0.05	0.20
E	-	7.0
G	0.70	1.10
H	4.5	4.9
J	2.3	2.7
K	2.3	2.7
L	0.50	0.80
All Dimensions in mm		

## Suggested Pad Layout

MiniDIP



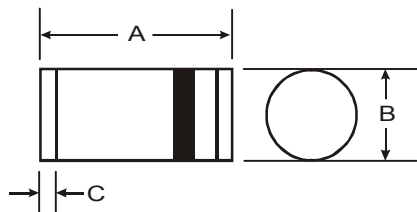
Dimensions	DF-S	MiniDIP
Z	10.26	6.91
X	1.2	0.60
Y	1.52	0.76
C	5.2	2.67

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

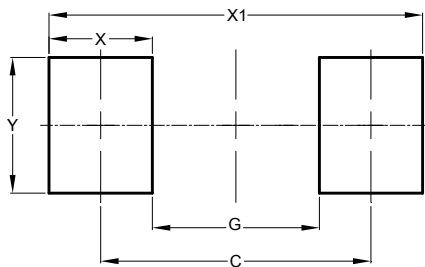
MiniMELF



MiniMELF		
Dim	Min	Max
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50
All Dimensions in mm		

## Suggested Pad Layout

MiniMELF



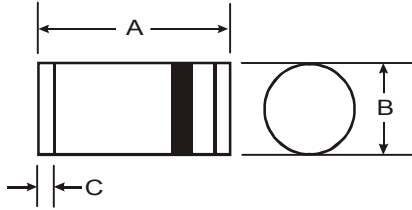
Dimensions	Value (in mm)
	MiniMELF
C	3.50
G	2.10
X	1.30
X1	4.70
Y	1.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

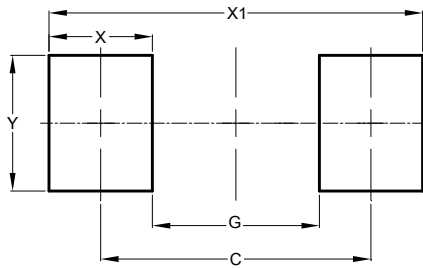
### MELF



MELF		
Dim	Min	Max
A	4.80	5.20
B	2.40	2.60
C	0.55 Typ	
All Dimensions in mm		

## Suggested Pad Layout

### MELF

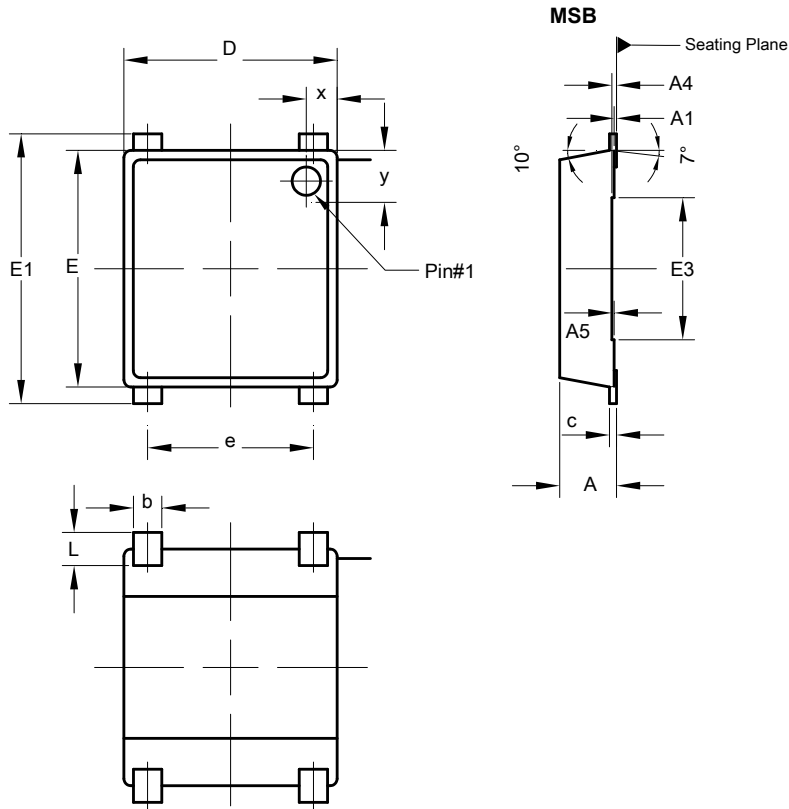


Dimensions	Value (in mm)
	MELF
C	4.80
G	3.30
X	1.50
X1	6.30
Y	2.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

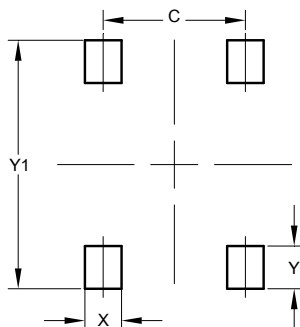
## Package Outline Dimensions



MSB			
Dim	Min	Max	Typ
A	1.10	1.20	1.30
A1	0.00	0.02	0.05
A4	0.05	-	0.08
A5	0.03	0.05	0.08
b	0.55	0.60	0.70
c	0.12	0.15	0.18
D	4.40	4.50	4.60
E	4.90	5.00	5.10
E1	5.60	5.70	5.80
E3	2.95	3.00	3.05
e	3.45	3.50	3.55
L	0.65	0.70	0.75
x	0.60	0.65	0.70
y	0.60	0.65	0.70
All Dimensions in mm			

## Suggested Pad Layout

MSB



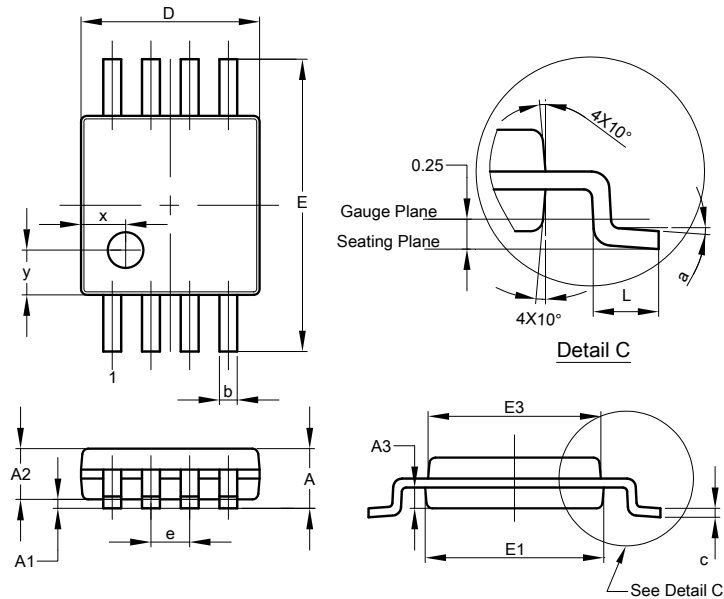
Dimensions	Value (in mm)
C	3.55
X	0.90
Y	1.05
Y1	6.10

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

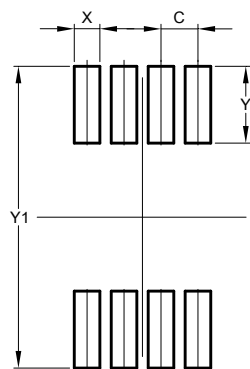
### MSOP-8



MSOP-8			
Dim	Min	Max	Typ
A	-	1.10	-
A1	0.05	0.15	0.10
A2	0.75	0.95	0.86
A3	0.29	0.49	0.39
b	0.22	0.38	0.30
c	0.08	0.23	0.15
D	2.90	3.10	3.00
E	4.70	5.10	4.90
E1	2.90	3.10	3.00
E3	2.85	3.05	2.95
e	-	-	0.65
L	0.40	0.80	0.60
a	0°	8°	4°
x	-	-	0.750
y	-	-	0.750
All Dimensions in mm			

## Suggested Pad Layout

### MSOP-8



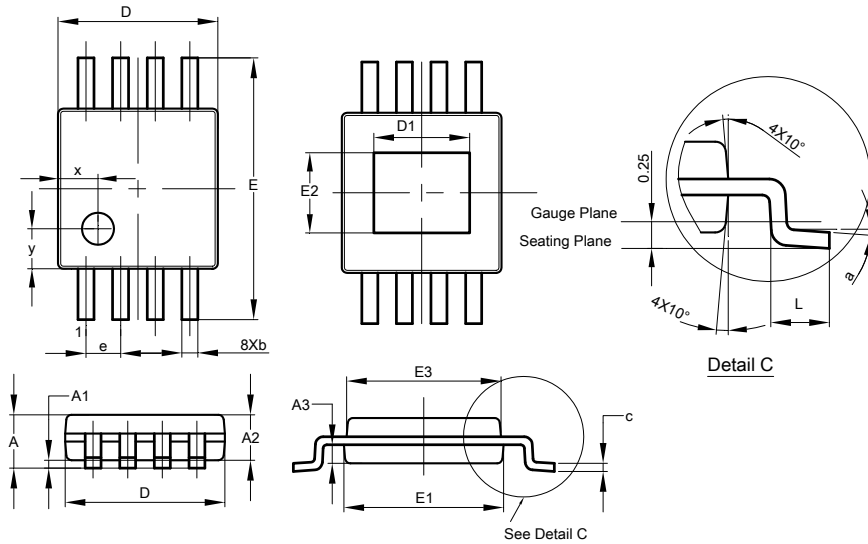
Dimensions	Value (in mm)
C	0.650
X	0.450
Y	1.350
Y1	5.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

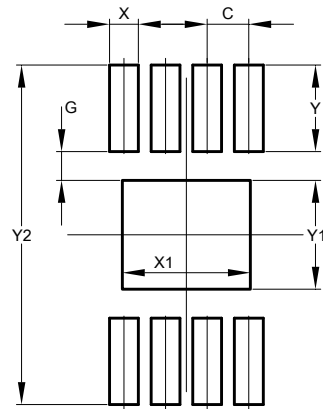
**MSOP-8EP**



MSOP-8EP			
Dim	Min	Max	Typ
A	-	1.10	-
A1	0.05	0.15	0.10
A2	0.75	0.95	0.86
A3	0.29	0.49	0.39
b	0.22	0.38	0.30
c	0.08	0.23	0.15
D	2.90	3.10	3.00
D1	1.60	2.00	1.80
E	4.70	5.10	4.90
E1	2.90	3.10	3.00
E2	1.30	1.70	1.50
E3	2.85	3.05	2.95
e	-	-	0.65
L	0.40	0.80	0.60
a	0°	8°	4°
x	-	-	0.750
y	-	-	0.750
All Dimensions in mm			

## Suggested Pad Layout

**MSOP8-EP**



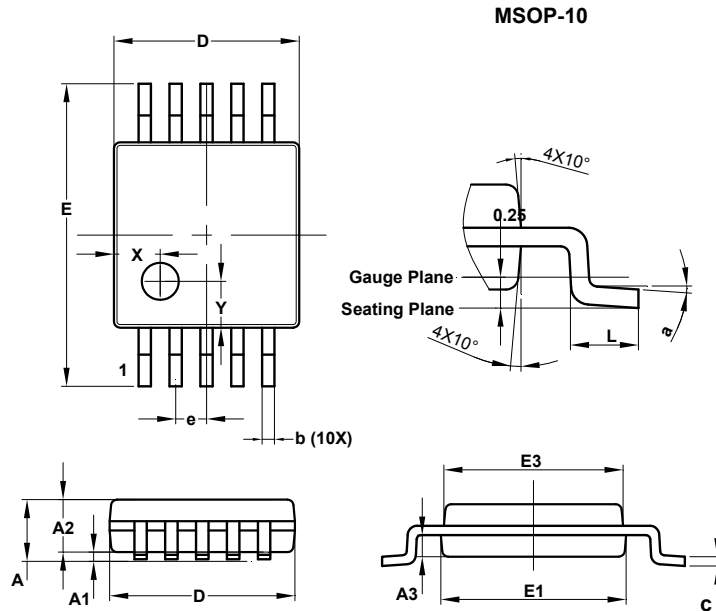
Dimensions	Value (in mm)
C	0.650
G	0.450
X	0.450
X1	2.000
Y	1.350
Y1	1.700
Y2	5.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

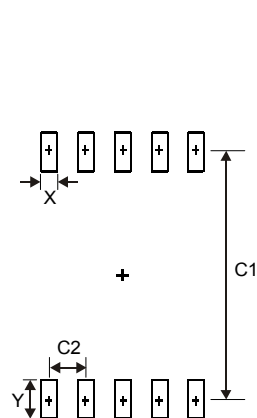


## Package Outline Dimensions



MSOP-10			
Dim	Min	Max	Typ
a	0°	8°	4°
A	-	1.10	-
A1	0.05	0.15	0.10
A	0.75	0.95	0.86
b	0.17	0.27	0.20
c	0.08	0.23	0.15
D	2.95	3.05	3.00
e	-	-	0.50
E	4.80	5.00	4.90
E1	2.95	3.05	3.00
L	0.40	0.80	0.60
All Dimensions in mm			

## Suggested Pad Layout

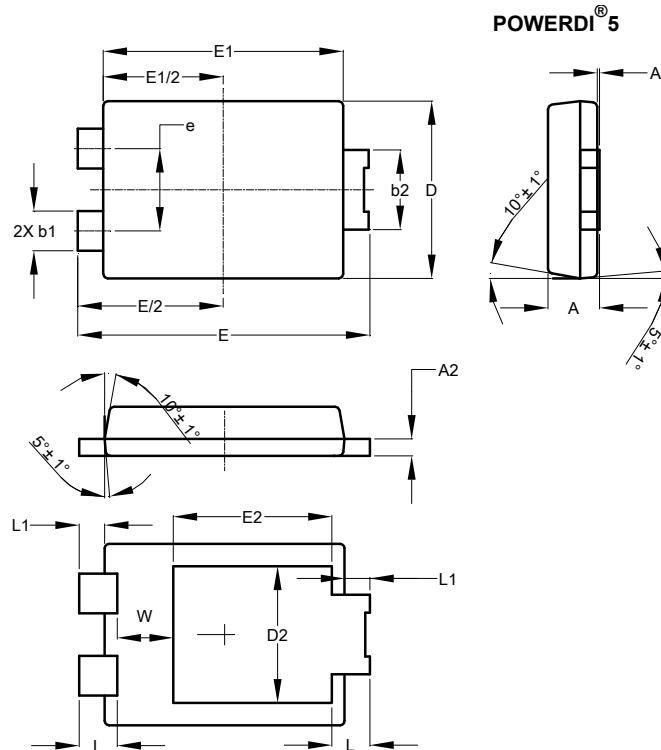


Dimensions	Value (in mm)
X	0.30
Y	1.4
C1	4.4
C2	0.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

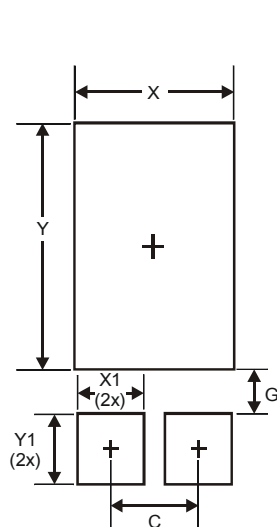
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



POWERDI <sup>®</sup> 5			
Dim	Min	Max	Typ
A	1.05	1.15	1.10
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	-	-	3.054
E	6.40	6.60	6.504
e	-	-	1.84
E1	5.30	5.45	5.37
E2	-	-	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

## Suggested Pad Layout



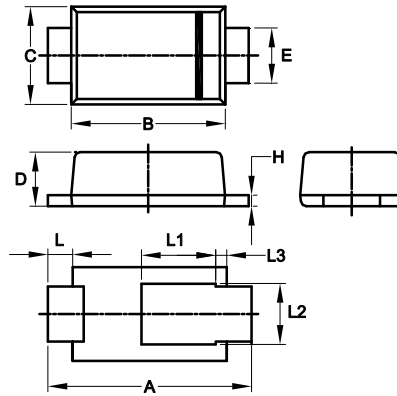
Dimensions	Value (in mm)
C	1.840
G	0.852
X	3.360
X1	1.390
Y	4.860
Y1	1.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

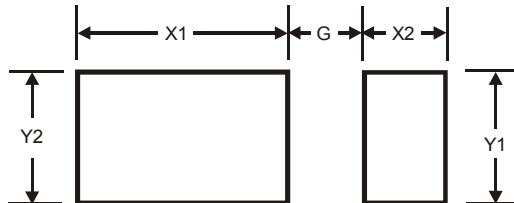
POWERDI® 123



POWERDI® 123			
Dim	Min	Max	Typ
A	3.50	3.90	3.70
B	2.60	3.00	2.80
C	1.63	1.93	1.78
D	0.93	1.00	0.98
E	0.85	1.25	1.00
H	0.15	0.25	0.20
L	0.40	0.50	0.45
L1	1.25	1.40	1.35
L2	1.025	1.125	1.10
L3	0.125	0.275	0.20
All Dimensions in mm			

## Suggested Pad Layout

POWERDI® 123



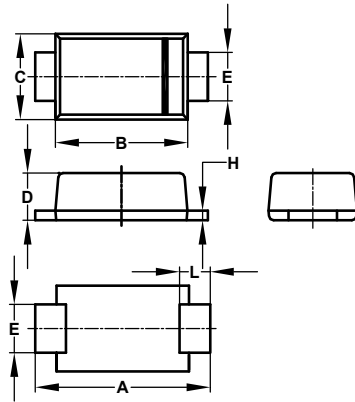
Dimensions	POWERDI® 123	POWERDI® 323
G	1.0	0.5
X1	2.2	2.0
X2	0.9	0.8
Y1	1.4	0.8
Y2	1.4	1.1

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

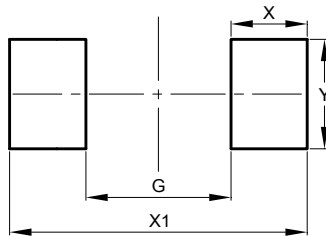
POWERDI® 123 (Type B)



POWERDI® 123 Type B			
Dim	Min	Max	Typ
A	3.50	3.90	3.70
B	2.60	3.00	2.80
C	1.63	1.93	1.78
D	0.93	1.00	0.98
E	0.85	1.25	1.00
H	0.15	0.25	0.20
L	0.50	0.80	0.65
All Dimensions in mm			

## Suggested Pad Layout

POWERDI® 123 (Type B)

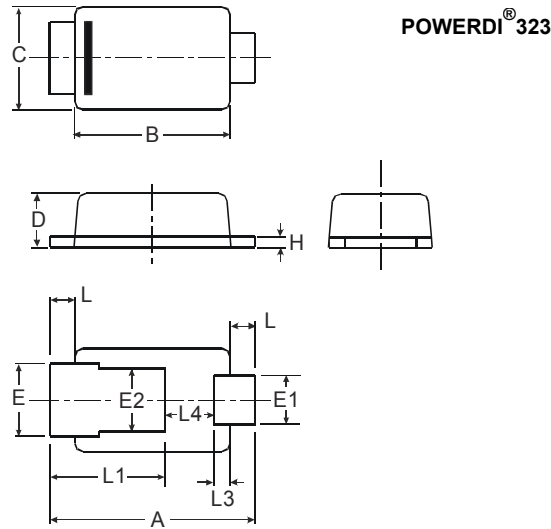


Dimensions	Value (in mm)
G	2.000
X	1.050
X1	4.100
Y	1.500

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

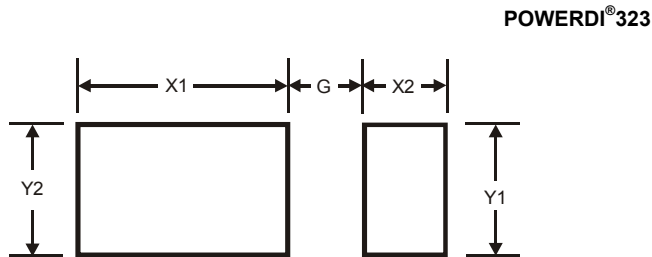
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



POWERDI® 323			
Dim	Min	Max	Typ
A	2.40	2.60	2.50
B	1.85	1.95	1.90
C	1.20	1.30	1.25
D	0.60	0.70	0.65
E	0.78	0.98	0.88
E1	0.50	0.70	0.60
E2	0.60	1.00	0.80
H	0.08	0.18	0.13
L	0.20	0.40	0.30
L1	-	-	1.40
L3	-	-	0.20
L4	0.40	0.80	0.60
All Dimensions in mm			

## Suggested Pad Layout



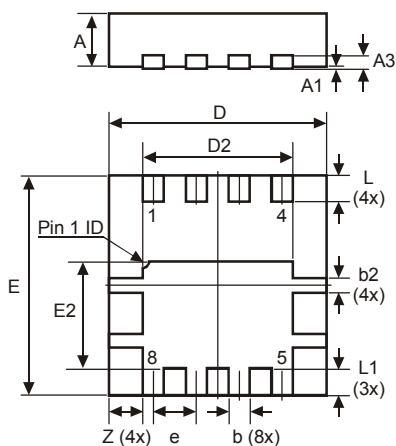
Dimensions	POWERDI®123	POWERDI®323
G	1.0	0.5
X1	2.2	2.0
X2	0.9	0.8
Y1	1.4	0.8
Y2	1.4	1.1

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

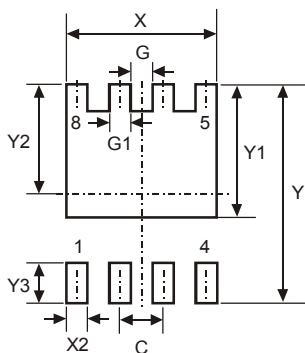
POWERDI® 3333-8



POWERDI® 3333-8			
Dim	Min	Max	Typ
D	3.25	3.35	3.30
E	3.2	3.35	3.30
D2	2.22	2.32	2.27
E2	1.56	1.66	1.61
A	0.75	0.85	0.80
A1	0	0.05	0.02
A3	-	-	0.203
b	0.27	0.37	0.32
b2	-	-	0.20
L	0.35	0.45	0.40
L1	-	-	0.39
e	-	-	0.65
Z	-	-	0.515
All Dimensions in mm			

## Suggested Pad Layout

POWERDI® 3333-8



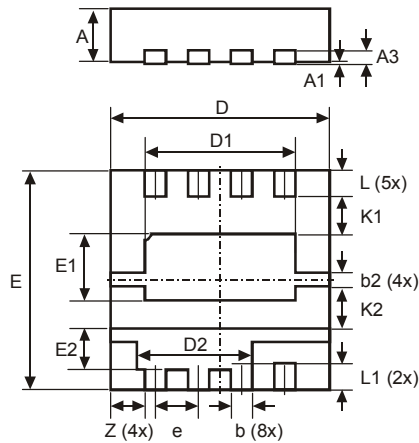
Dimensions	Value (in mm)
C	0.650
G	0.230
G1	0.420
Y	3.700
Y1	2.250
Y2	1.850
Y3	0.700
X	2.370
X2	0.420

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

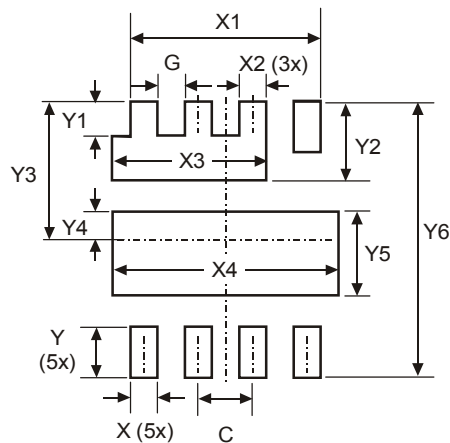
POWERDI® 3333-8 (Type B)



POWERDI® 3333-8 Type B			
Dim	Min	Max	Typ
A	0.75	0.85	0.80
A1	0	0.05	0.02
A3	—	—	0.203
b	0.27	0.37	0.32
b2	—	—	0.20
D	3.25	3.35	3.30
D1	2.55	2.66	2.61
D2	1.74	1.84	1.79
e	—	—	0.65
E	3.25	3.35	3.30
E1	1.14	1.24	1.19
E2	0.61	0.71	0.66
K1	—	—	0.41
K2	—	—	0.38
L	0.35	0.45	0.40
L1	—	—	0.25
Z	—	—	0.515
All Dimensions in mm			

## Suggested Pad Layout

POWERDI® 3333-8 (Type B)



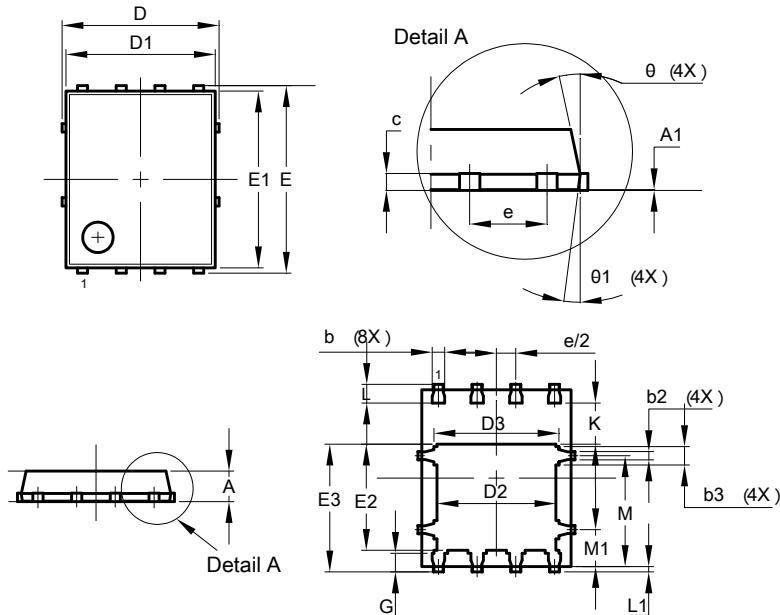
Dimensions	Value (in mm)
C	0.650
G	0.230
X	0.420
X1	2.370
X2	0.420
X3	1.890
X4	2.710
Y	0.700
Y1	0.400
Y2	1.160
Y3	1.850
Y4	0.405
Y5	1.295
Y6	3.700

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

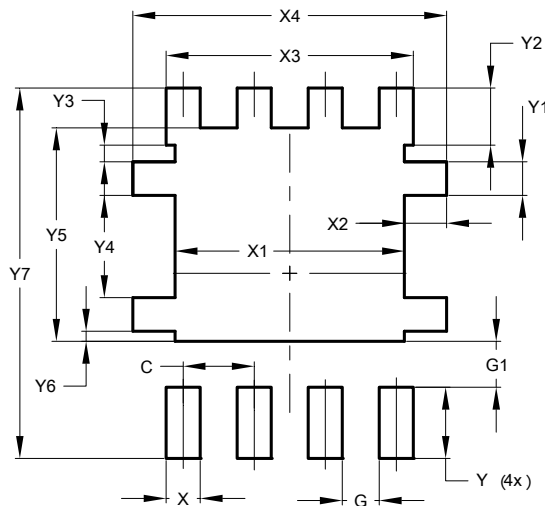
POWERDI® 5060-8



POWERDI® 5060-8			
Dim	Min	Max	Typ
A	0.90	1.10	1.00
A1	0.00	0.05	—
b	0.33	0.51	0.41
b2	0.200	0.350	0.273
b3	0.40	0.80	0.60
c	0.230	0.330	0.277
D	5.15 BSC		
D1	4.70	5.10	4.90
D2	3.70	4.10	3.90
D3	3.90	4.30	4.10
E	6.15 BSC		
E1	5.60	6.00	5.80
E2	3.28	3.68	3.48
E3	3.99	4.39	4.19
e	1.27 BSC		
G	0.51	0.71	0.61
K	0.51	—	—
L	0.51	0.71	0.61
L1	0.100	0.200	0.175
M	3.235	4.035	3.635
M1	1.00	1.40	1.21
θ	10°	12°	11°
θ1	6°	8°	7°
All Dimensions in mm			

## Suggested Pad Layout

POWERDI® 5060-8



Dimensions	Value (in mm)
C	1.270
G	0.660
G1	0.820
X	0.610
X1	4.100
X2	0.755
X3	4.420
X4	5.610
Y	1.270
Y1	0.600
Y2	1.020
Y3	0.295
Y4	1.825
Y5	3.810
Y6	0.180
Y7	6.610

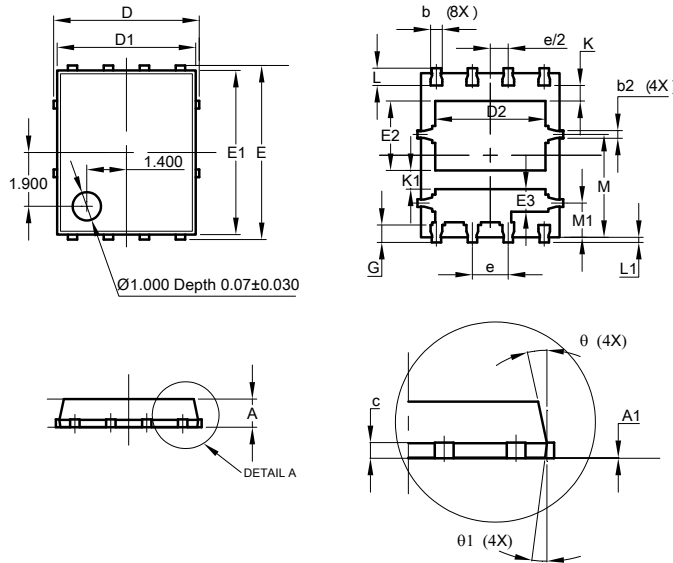
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

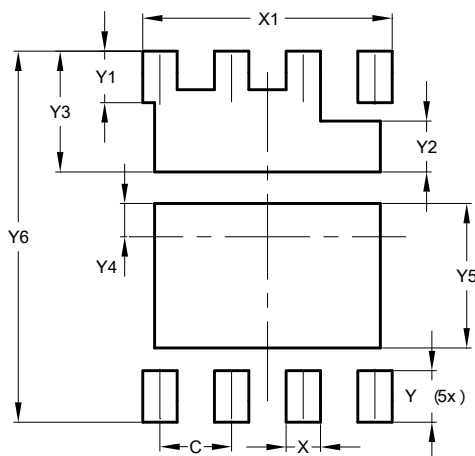
POWERDI® 5060-8 (Type B)



POWERDI® 5060-8 TYPE B			
Dim	Min	Max	Typ
A	0.90	1.10	1.00
A1	0.00	0.05	—
b	0.33	0.51	0.41
b2	0.20	0.40	0.273
c	0.230	0.330	0.273
D	5.15 BSC		
D1	4.70	5.10	4.90
D2	3.50	4.40	3.90
E	6.15 BSC		
E1	5.60	6.00	5.80
E2	2.25	2.65	2.45
E3	0.595	0.995	0.795
e	1.27 BSC		
G	0.51	0.71	0.61
K	0.51	—	—
K1	0.51	—	—
L	0.51	0.71	0.61
L1	0.05	0.20	0.175
M	3.235	4.035	3.635
M1	1.00	1.40	1.21
θ1	10°	12°	11°
θ2	6°	8°	7°
All Dimensions in mm			

## Suggested Pad Layout

POWERDI® 5060-8 (Type B)



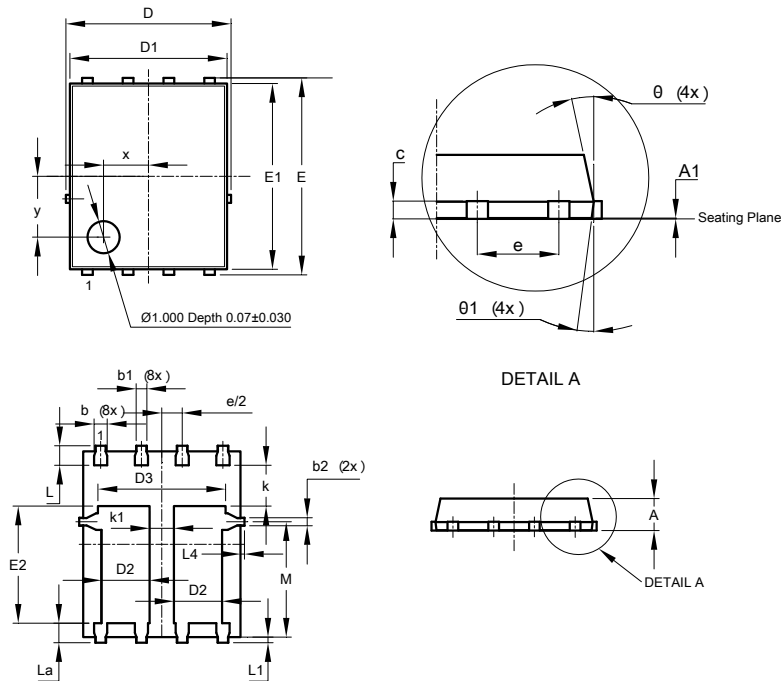
Dimensions	Value (in mm)
C	1.270
X	0.610
X1	4.420
Y	0.910
Y1	0.910
Y2	0.895
Y3	2.130
Y4	0.585
Y5	2.550
Y6	6.550

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

PowerDI5060-8 (Type C)



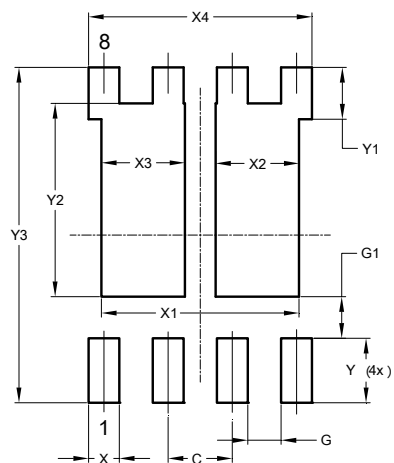
PowerDI5060-8 (Type C)			
Dim	Min	Max	Typ
A	0.90	1.10	1.00
A1	0	0.05	0.02
b	0.33	0.51	0.41
b1	0.300	0.366	0.333
b2	0.20	0.35	0.25
c	0.23	0.33	0.277
D	5.15 BSC		
D1	4.85	4.95	4.90
D2	1.40	1.60	1.50
D3	-	-	3.98
E	6.15 BSC		
E1	5.75	5.85	5.80
E2	3.56	3.76	3.66
e	1.27BSC		
k	-	-	1.27
k1	0.56	-	-
L	0.51	0.71	0.61
La	0.51	0.71	0.61
L1	0.05	0.20	0.175
L4	-	-	0.125
M	3.50	3.71	3.605
x	-	-	1.400
y	-	-	1.900
θ	10°	12°	11°
θ1	6°	8°	7°
All Dimensions in mm			

## Suggested Pad Layout

PowerDI5060-8 (Type C)

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



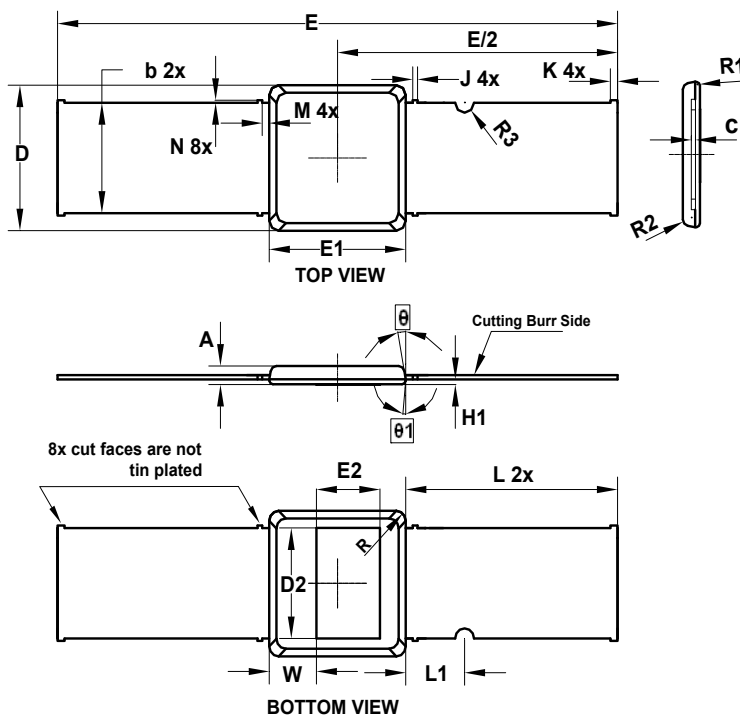
Dimensions	Value (in mm)
<b>C</b>	1.270
<b>G</b>	0.660
<b>G1</b>	0.820
<b>X</b>	0.610
<b>X1</b>	3.910
<b>X2</b>	1.650
<b>X3</b>	1.650
<b>X4</b>	4.420
<b>Y</b>	1.270
<b>Y1</b>	1.020
<b>Y2</b>	3.810
<b>Y3</b>	6.610

**ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS**

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

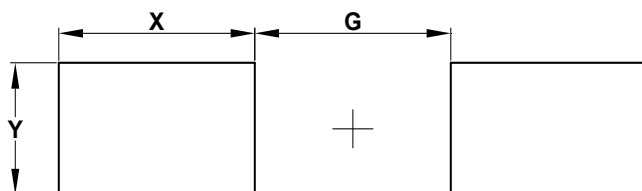
## Package Outline Dimensions

POWERDI<sup>®</sup> 5SP



POWERDI <sup>®</sup> 5SP			
Dim	Min	Max	Typ
A	—	0.75	—
b	4.30	4.50	4.40
c	0.155	0.195	—
D	5.70	5.90	5.80
D2	4.40	—	—
E	23.6	24.0	23.8
E1	5.70	5.90	5.80
E2	2.74	—	—
H1	0.19	0.21	0.20
J	—	—	0.20
K	—	—	0.30
L	—	—	9.00
L1	—	—	2.50
M	—	—	0.30
N	0	0.20	—
R	—	—	0.40
R1	—	—	0.15
R2	—	—	0.25
R3	—	—	0.40
W	1.66	2.06	—
θ	8°	12°	—
θ1	3°	7°	—
All Dimensions in mm			

## Suggested Pad Layout



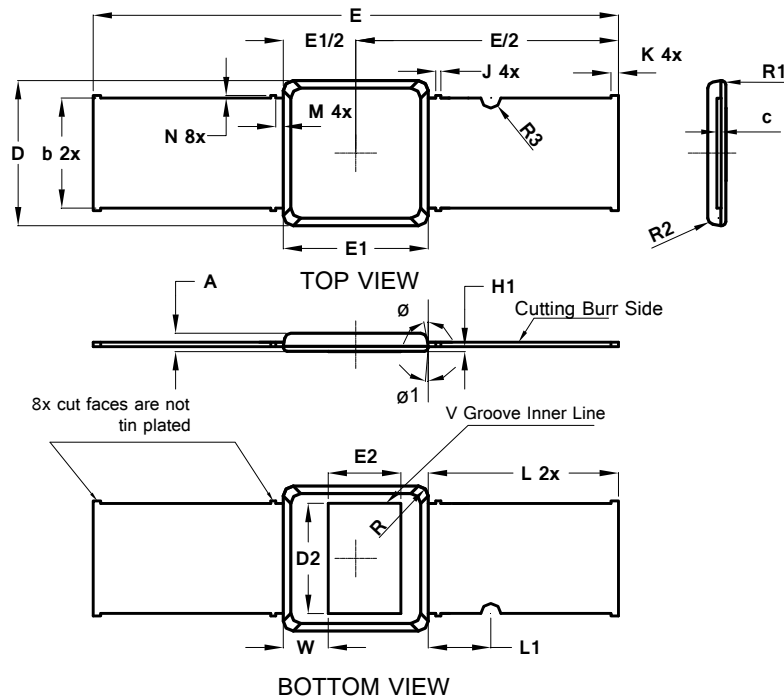
Dimensions	Value (in mm)
G	8.101
X	8.100
Y	5.100

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

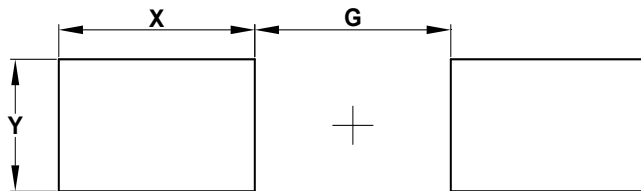
## Package Outline Dimensions

POWERDI<sup>®</sup> 5SP (Type B)



POWERDI <sup>®</sup> 5SP Type B			
Dim	Min	Max	Typ
A	–	0.75	–
b	4.30	4.50	4.40
c	0.155	0.191	–
D	5.70	5.90	5.80
D2	4.40	–	–
E	20.8	21.2	21.0
E1	5.70	5.90	5.80
E2	2.90	–	–
H1	0.19	0.21	0.20
J	–	–	0.20
K	–	–	0.30
L	–	–	7.60
L1	–	–	2.50
M	–	–	0.30
N	0	0.20	–
R	–	–	0.40
R1	–	–	0.15
R2	–	–	0.25
R3	–	–	0.40
W	1.63	1.97	1.80
Ø	8°	12°	–
Ø1	3°	7°	–
All Dimensions in mm			

## Suggested Pad Layout

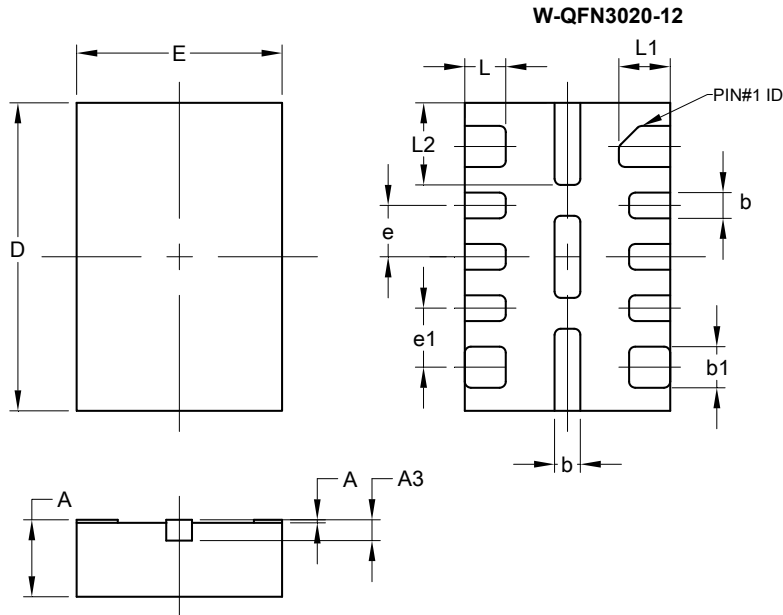


Dimensions	Value (in mm)
G	8.101
X	8.100
Y	5.100

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

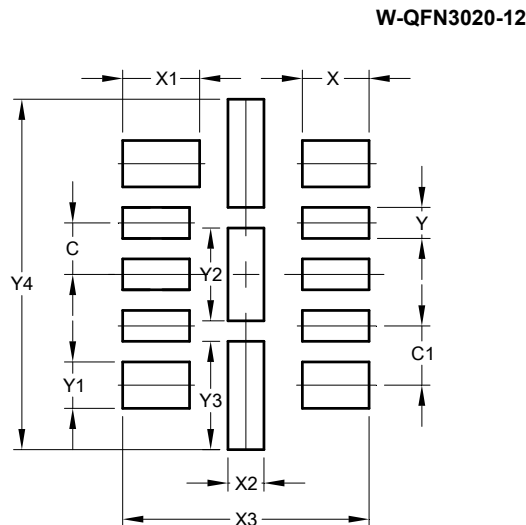
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



-QFN3020-12			
Dim	Min	Max	Typ
A	0.700	0.800	-
A1	0	0.05	-
A3	0.203REF		
b	0.200	0.300	-
b1	0.350	0.450	-
D	1.900	2.100	2.000
E	2.900	3.100	3.000
e	-	-	0.500
e1	-	-	0.575
L	0.350	0.450	-
L1	0.450	0.550	-
L2	0.750	0.850	-
All Dimensions in mm			

## Suggested Pad Layout



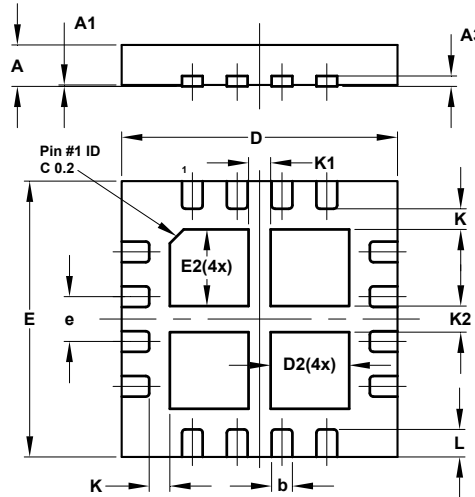
Dimensions	Value (in mm)
C	0.500
G	0.575
X	0.650
X1	0.750
X2	0.350
X3	2.400
Y	0.300
Y1	0.450
Y2	0.900
Y3	1.050
Y4	3.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

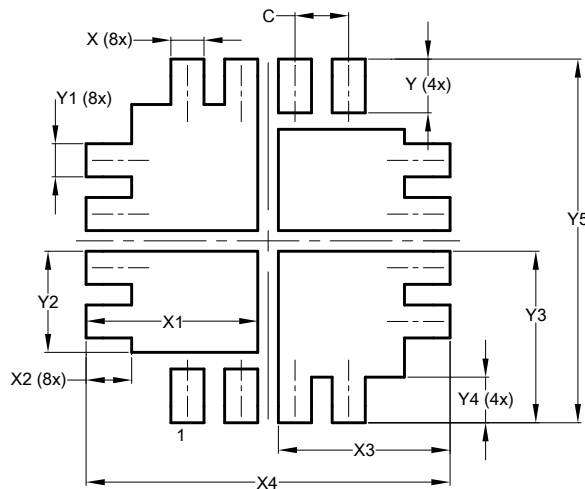
U-QFN4040-16 (Type C)



U-QFN4040-16 Type C			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.25	0.35	0.30
D	3.95	4.05	4.00
D2	1.04	1.24	1.14
E	3.95	4.05	4.00
E2	1.01	1.21	1.11
e	-	-	0.65
K	-	-	0.30
K1	-	-	0.32
K2	-	-	0.38
L	0.35	0.45	0.40
All Dimensions in mm			

## Suggested Pad Layout

U-QFN4040-16 (Type C)

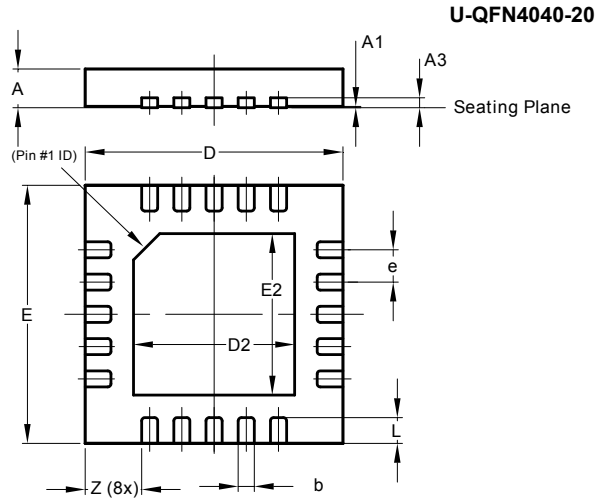


Dimensions	Value (in mm)
C	0.650
X	0.400
X1	2.075
X2	0.550
X3	2.075
X4	4.400
Y	0.650
Y1	0.400
Y2	1.225
Y3	2.075
Y4	0.550
Y5	4.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

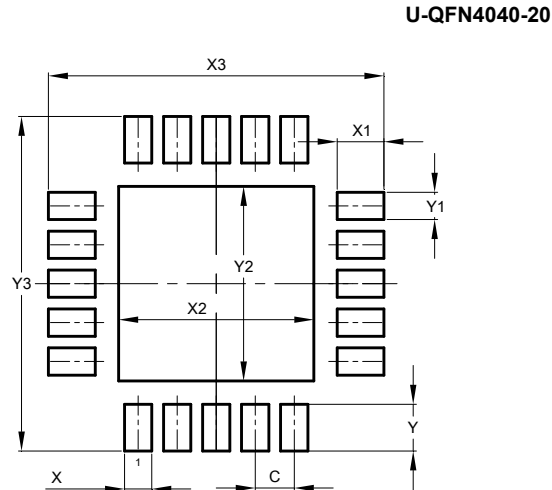
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-QFN4040-20			
Dim	Min	Max	Typ
A	0.55	0.65	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.20	0.30	0.25
D	3.95	4.05	4.00
D2	2.40	2.60	2.50
E	3.95	4.05	4.00
E2	2.40	2.60	2.50
e	0.50 BSC		
L	0.35	0.45	0.40
Z	-	-	0.875
All Dimensions in mm			

## Suggested Pad Layout



Dimensions	Value (in mm)
C	0.500
X	0.350
X1	0.600
X2	2.500
X3	4.300
Y	0.600
Y1	0.350
Y2	2.500
Y3	4.300

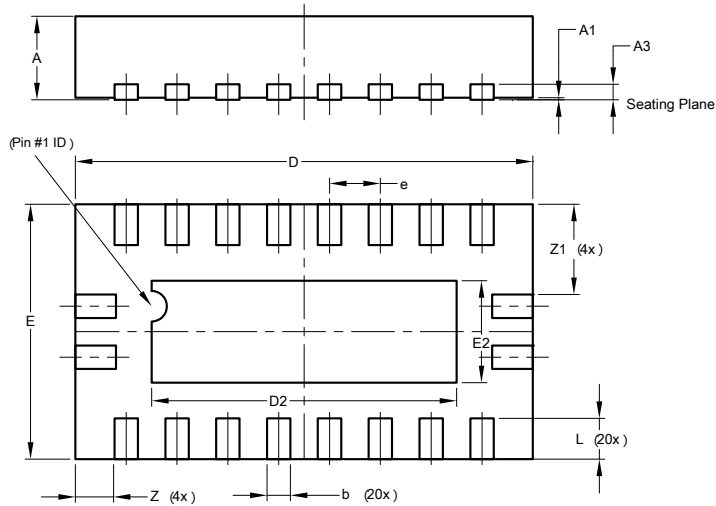
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

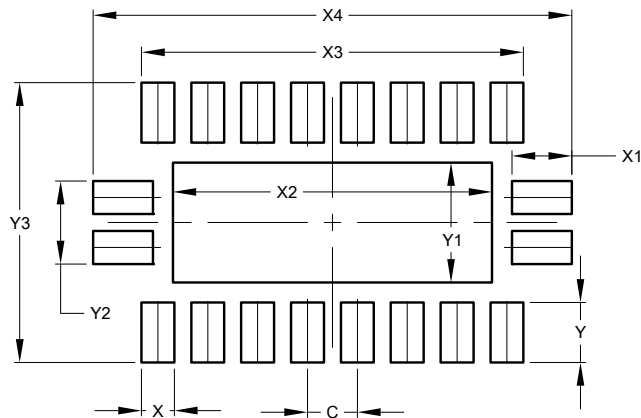
V-QFN4525-20



V-QFN4525-20			
Dim	Min	Max	Typ
A	0.75	0.85	0.80
A1	0.00	0.05	0.02
A3	-	-	0.15
b	0.18	0.30	0.23
D	4.45	4.55	4.50
D2	2.85	3.15	3.00
E	2.45	2.55	2.50
E2	0.85	1.15	1.00
e	0.50BSC		
L	0.30	0.50	0.40
Z	-	-	0.385
Z1	-	-	0.885
All Dimensions in mm			

## Suggested Pad Layout

V-QFN4525-20

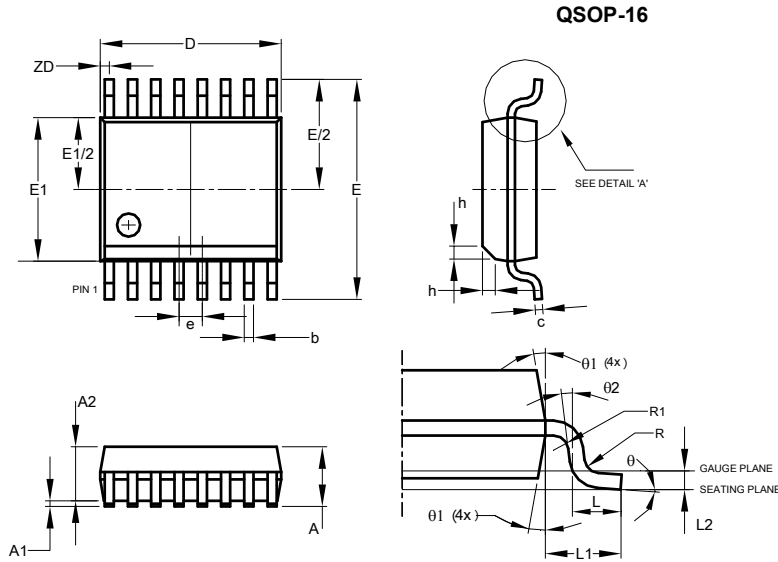


Dimensions	Value (in mm)
C	0.500
X	0.330
X1	0.600
X2	3.200
X3	3.830
X4	4.800
Y	0.600
Y1	1.200
Y2	0.830
Y3	2.800

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

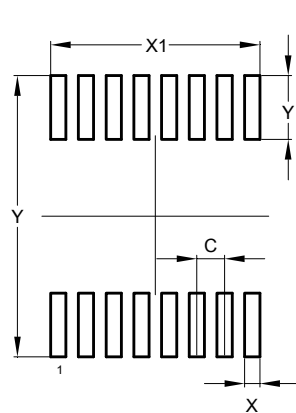
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



QSOP-16			
Dim	Min	Max	Typ
A	1.55	1.73	-
A1	0.10	0.25	-
A2	1.40	1.50	-
b	0.20	0.30	-
c	0.18	0.25	-
D	4.80	5.00	-
E	5.79	6.20	-
E1	3.81	3.99	-
e	0.635 BSC		
h	0.254	0.508	-
L	0.41	1.27	-
L1	1.03 REF		
L2	0.254 BSC		
R	0.0762	-	-
R1	0.0762	-	-
ZD	0.23 REF		
θ	0°	8°	-
θ1	5°	15°	-
θ2	0°	-	-
All Dimensions in mm			

## Suggested Pad Layout

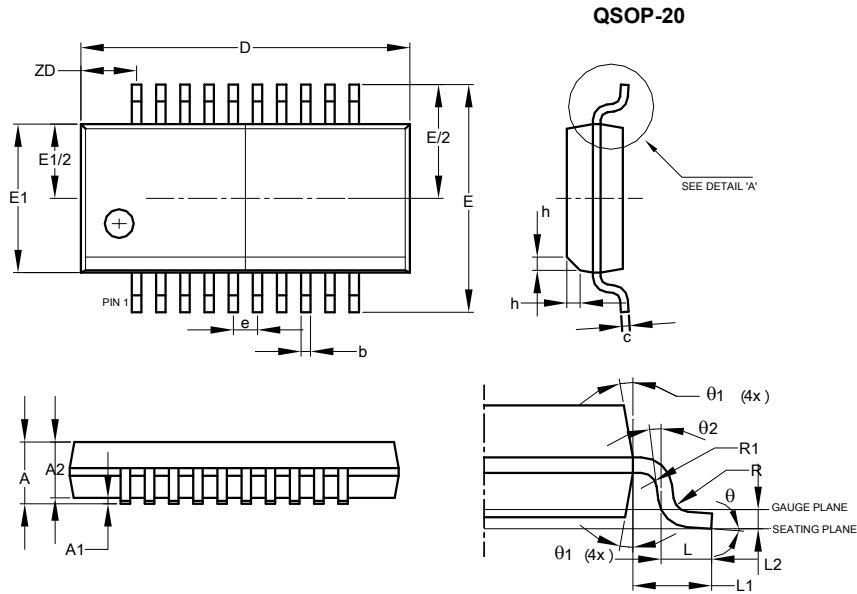


Dimensions	Value (in mm)
C	0.635
X	0.350
X1	4.795
Y	1.450
Y1	6.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

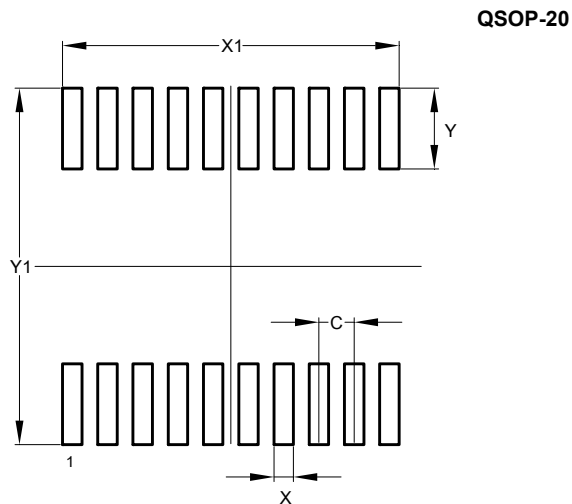
## Package Outline Dimensions



QSOP-20			
Dim	Min	Max	Typ
A	1.55	1.73	-
A1	0.10	0.25	-
A2	1.40	1.50	-
b	0.20	0.30	-
c	0.18	0.25	-
D	8.56	8.74	-
E	5.79	6.20	-
E1	3.81	3.99	-
e	0.635 BSC		
h	0.254	0.508	-
L	0.41	1.27	-
L1	1.03 REF		
L2	0.254 BSC		
R	0.0762	-	-
R1	0.0762	-	-
ZD	1.47 REF		
θ	0°	8°	-
θ1	5°	15°	-
θ2	0°	-	-

All Dimensions in mm

## Suggested Pad Layout



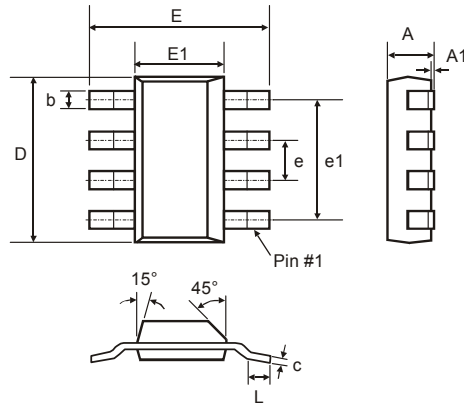
Dimensions	Value (in mm)
C	0.635
X	0.350
X1	6.065
Y	1.450
Y1	6.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

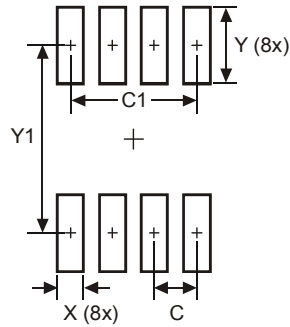
SM-8



SM-8			
Dim	Min	Max	Typ
A	-	1.7	-
A1	0.02	0.1	-
b	-	0.7	-
c	0.24	0.32	-
D	6.3	6.7	-
e	-	-	1.53
e1	-	-	4.59
E	6.7	7.3	-
E1	3.3	3.7	-
L	0.9	-	-
All Dimensions in mm			

## Suggested Pad Layout

SM-8

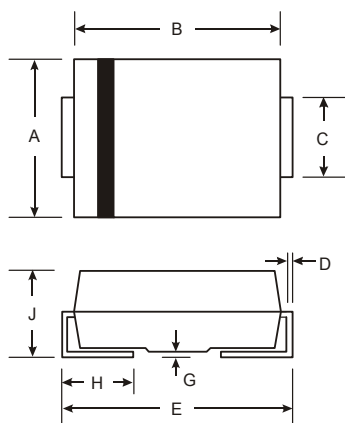


Dimensions	Value (in mm)
C	1.52
C1	4.6
X	0.95
Y	2.80
Y1	6.80

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

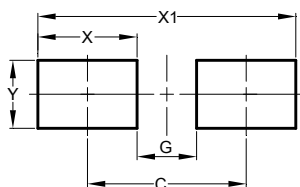
## Package Outline Dimensions



SMA

SMA		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.05	0.20
H	0.76	1.52
J	2.01	2.30
All Dimensions in mm		

## Suggested Pad Layout



SMA

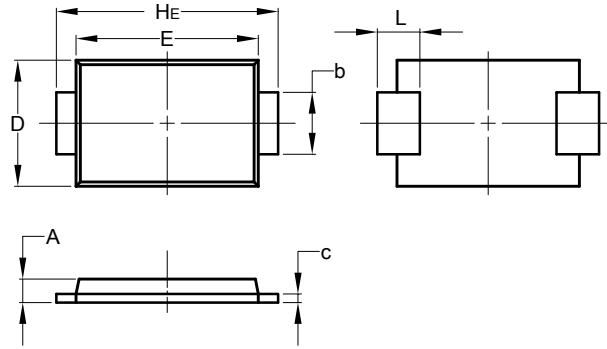
Dimensions	Value (in mm)
C	4.00
G	1.50
X	2.50
X1	6.50
Y	1.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

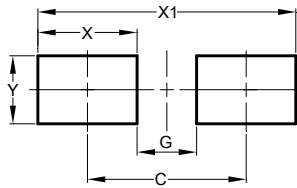
SMAF



SMAF		
Dim	Min	Max
A	0.90	1.10
b	1.25	1.65
c	0.10	0.40
D	2.25	2.95
E	3.95	4.60
HE	4.80	5.60
L	0.50	1.50
All Dimensions in mm		

## Suggested Pad Layout

SMAF



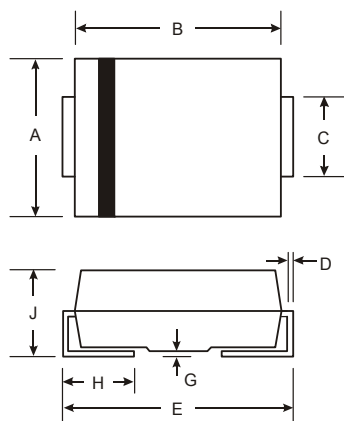
Dimensions	Value (in mm)
C	4.00
G	1.50
X	2.50
X1	6.50
Y	1.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

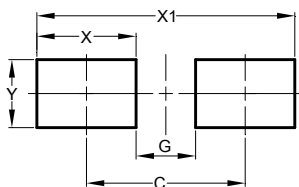
### SMB



SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.05	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

## Suggested Pad Layout

### SMB



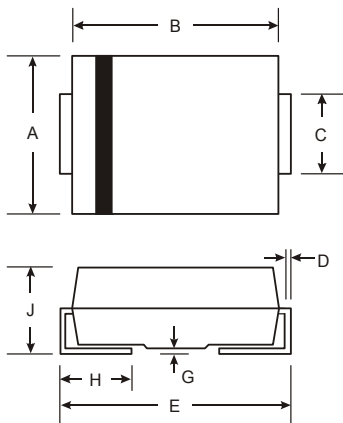
Dimensions	Value (in mm)
C	4.30
G	1.80
X	2.50
X1	6.80
Y	2.30

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

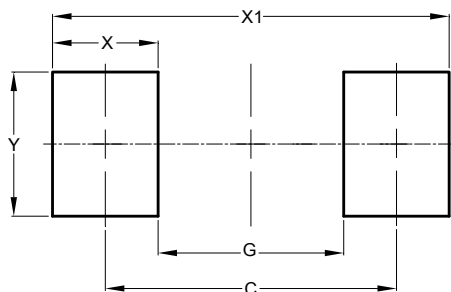
### SMC



SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

## Suggested Pad Layout

### SMC



Dimensions	Value (in mm)
C	6.90
G	4.40
X	2.50
X1	9.40
Y	3.30

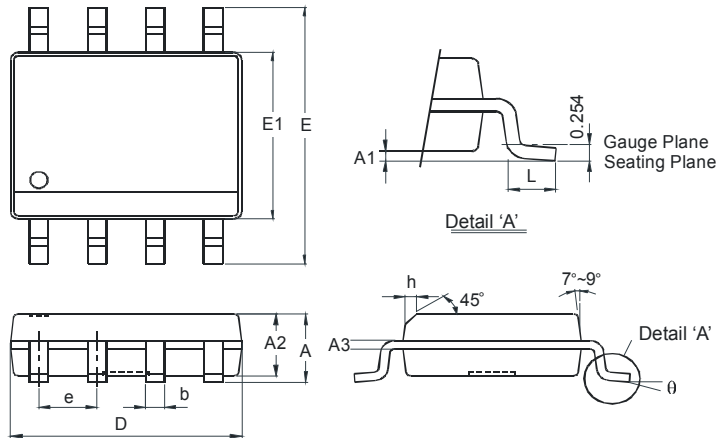
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

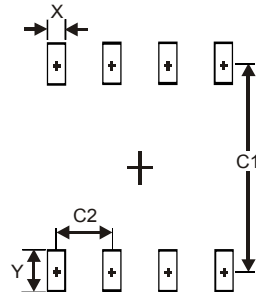
### SO-8



SO-8		
Dim	Min	Max
A	-	1.75
A1	0.10	0.20
A2	1.30	1.50
A3	0.15	0.25
b	0.3	0.5
D	4.85	4.95
E	5.90	6.10
E1	3.85	3.95
e	1.27 Typ	
h	-	0.35
L	0.62	0.82
θ	0°	8°
All Dimensions in mm		

## Suggested Pad Layout

### SO-8



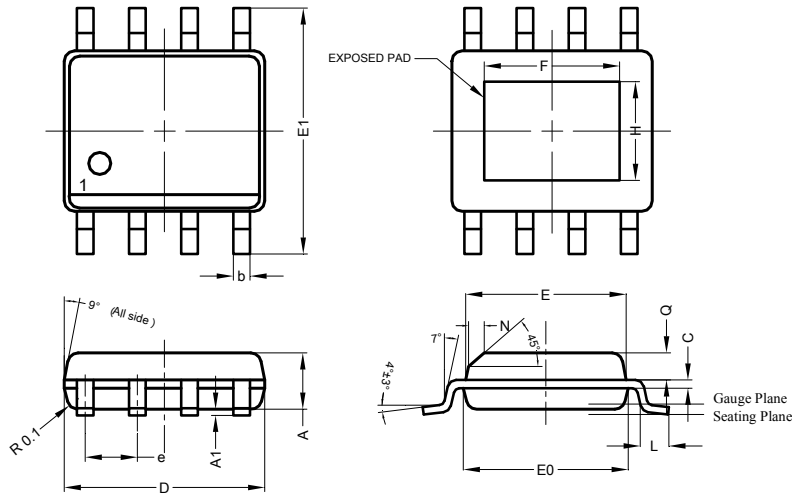
Dimensions	Value (in mm)
X	0.60
Y	1.55
C1	5.4
C2	1.27

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

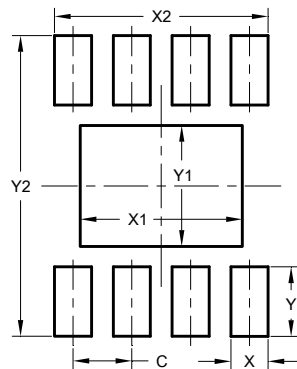
SO-8EP



SO-8EP			
Dim	Min	Max	Typ
A	1.40	1.50	1.45
A1	0.00	0.13	-
b	0.30	0.50	0.40
C	0.15	0.25	0.20
D	4.85	4.95	4.90
E	3.80	3.90	3.85
E0	3.85	3.95	3.90
E1	5.90	6.10	6.00
e	-	-	1.27
F	2.75	3.35	3.05
H	2.11	2.71	2.41
L	0.62	0.82	0.72
N	-	-	0.35
Q	0.60	0.70	0.65
All Dimensions in mm			

## Suggested Pad Layout

SO-8EP



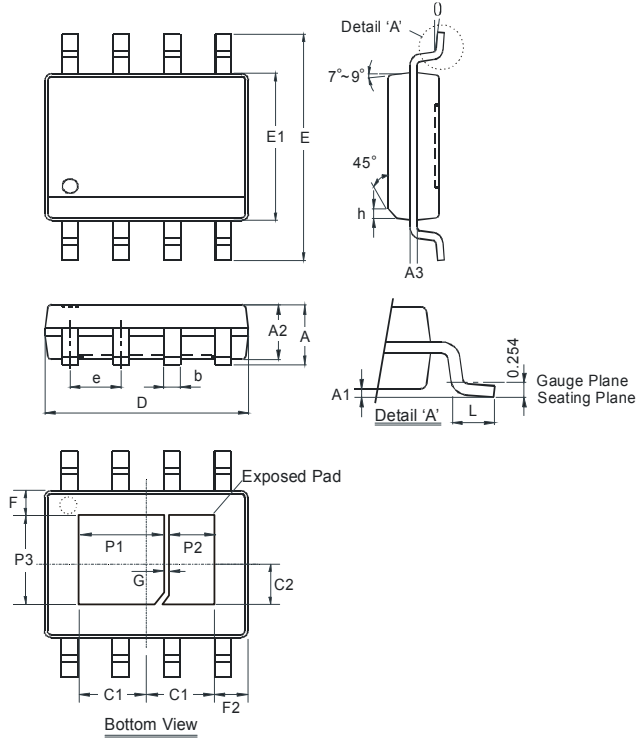
Dimensions	Value (in mm)
C	1.270
X	0.802
X1	3.502
X2	4.612
Y	1.505
Y1	2.613
Y2	6.500

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

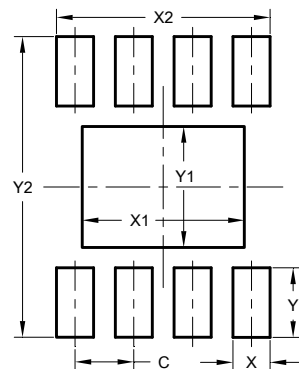
### SO-8EP



SO-8EP					
Dim	Min	Max	Dim	Min	Max
A	-	1.75	e	1.27	Typ
A1	0.10	0.20	F1	0.685	Typ
A2	1.30	1.50	F2	0.713	Typ
A3	0.15	0.25	G	0.20	Typ
b	0.3	0.5	h	-	0.35
C1	1.7	Typ	L	0.62	0.82
C2	0.9	Typ	P1	2.05	Typ
D	4.85	4.95	P2	1.15	Typ
E	5.90	6.10	P3	2.15	Typ
E1	3.85	3.95	θ	0°	8°
All Dimensions in mm					

## Suggested Pad Layout

### SO-8EP



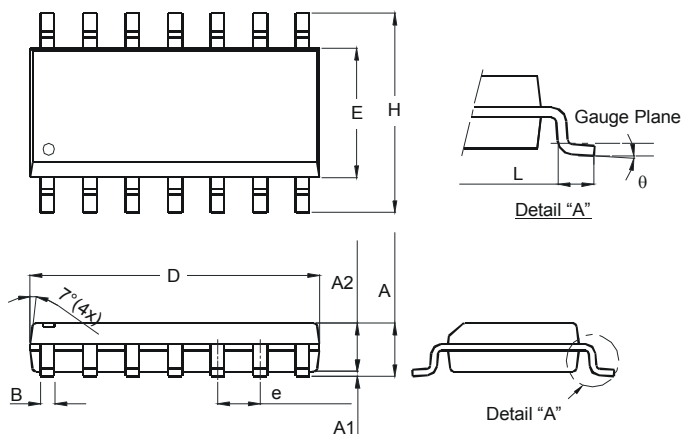
Dimensions	Value (in mm)
C	1.270
X	0.802
X1	3.502
X2	4.612
Y	1.505
Y1	2.613
Y2	6.500

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

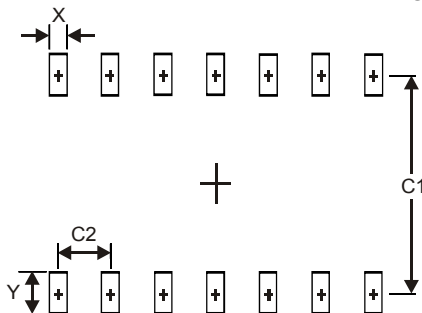
SO-14



SO-14		
Dim	Min	Max
A	1.47	1.73
A1	0.10	0.25
A2	1.45 Typ	
B	0.33	0.51
D	8.53	8.74
E	3.80	3.99
e	1.27 Typ	
H	5.80	6.20
L	0.38	1.27
θ	0°	8°
All Dimensions in mm		

## Suggested Pad Layout

SO-14



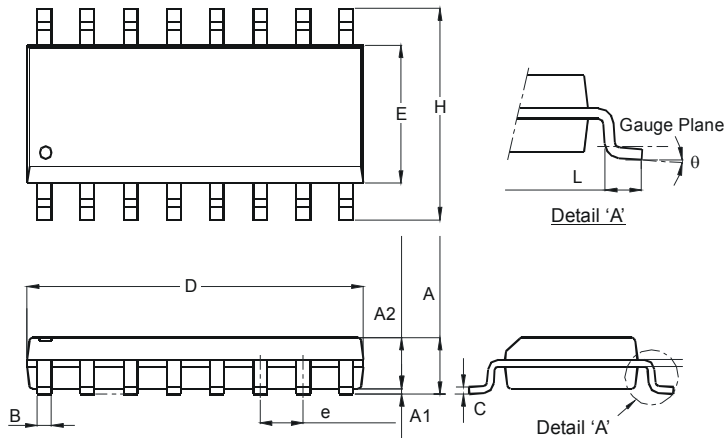
Dimensions	Value (in mm)
X	0.60
Y	1.50
C1	5.4
C2	1.27

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

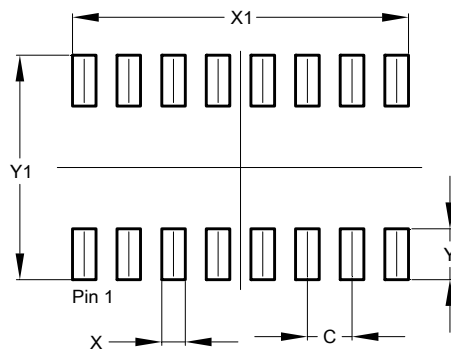
SO-16



SO-16		
Dim	Min	Max
A	1.40	1.75
A1	0.1	0.25
A2	1.30	1.50
B	0.33	0.51
C	0.19	0.25
D	9.80	10.00
E	3.80	4.00
e	1.27 Typ	
H	5.80	6.20
L	0.38	1.27
θ	0°	8°
All Dimensions in mm		

## Suggested Pad Layout

SO-16

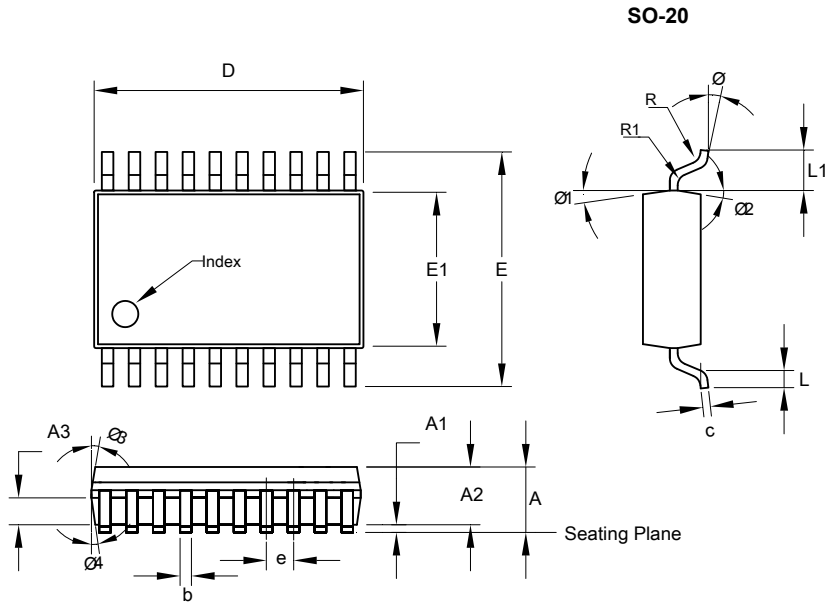


Dimensions	Value (in mm)
C	1.270
X	0.670
X1	9.560
Y	1.450
Y1	6.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

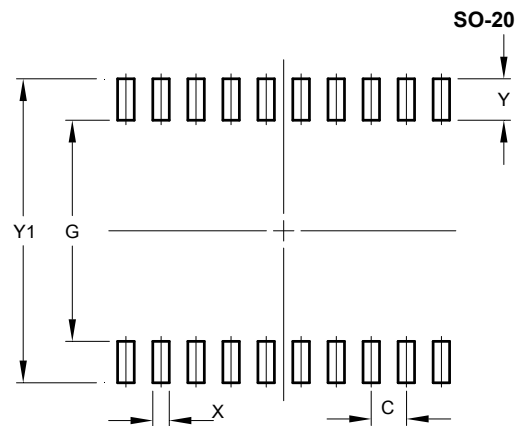
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



SO-20			
Dim	Min	Max	Typ
A	2.35	2.65	2.52
A1	0.10	0.30	0.20
A2	2.05	2.55	2.35
A3	0.90	1.10	1.00
b	0.35	0.49	-
c	0.23	0.32	-
D	12.60	12.80	12.70
E	10.00	10.60	10.20
E1	7.40	7.60	7.50
e	1.27 BSC		
L	0.50	1.27	0.80
L1	1.35 REF		
R/R1	0.07	-	-
θ	0°	8°	-
θ1	10°	14°	12°
θ2	6°	10°	8°
θ3	9°	14°	11.5°
θ4	6°	10°	8°
All Dimensions in mm			

## Suggested Pad Layout



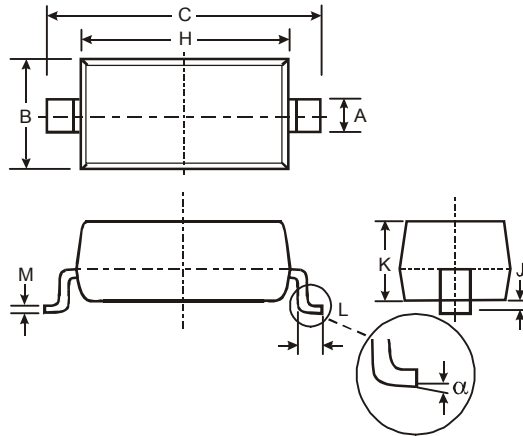
Dimensions	Value (in mm)
C	1.27
G	8.00
X	0.60
Y	1.50
Y1	11.00

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

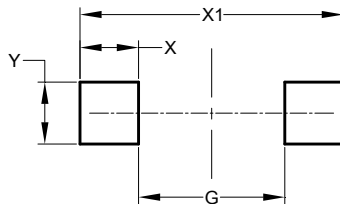
SOD123



SOD123		
Dim	Min	Max
A	0.55 Typ	
B	1.40	1.70
C	3.55	3.85
H	2.55	2.85
J	0.00	0.10
K	1.00	1.35
L	0.25	0.40
M	0.10	0.15
$\alpha$	0	8°
All Dimensions in mm		

## Suggested Pad Layout

SOD123



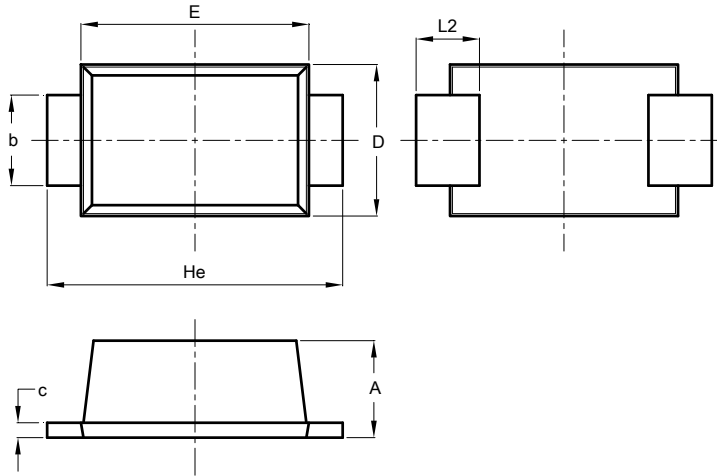
Dimensions	Value (in mm)
G	2.250
X	0.900
X1	4.050
Y	0.950

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

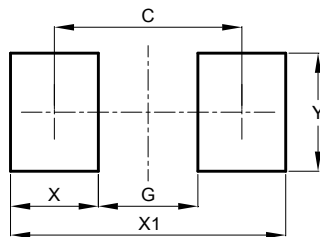
SOD123F



SOD123F			
Dim	Min	Max	Typ
A	0.81	1.15	-
b	0.80	1.35	-
c	0.05	0.30	-
D	1.70	1.90	1.80
E	2.60	2.80	2.70
He	3.30	3.70	3.50
L2	0.35	0.85	-
All Dimensions in mm			

## Suggested Pad Layout

SOD123F



Dimensions	Value (in mm)
C	2.86
G	1.52
X	1.34
X1	4.20
Y	1.80

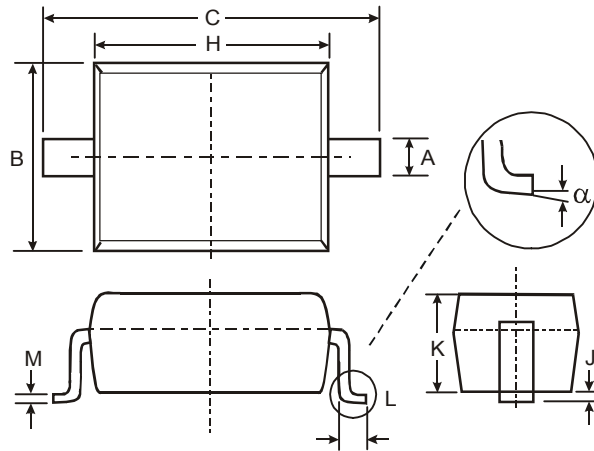
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

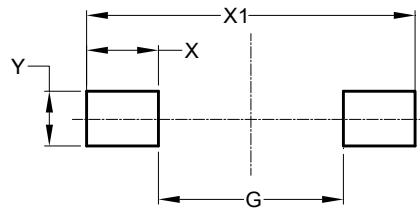
SOD323



SOD323		
Dim	Min	Max
A	0.25	0.35
B	1.20	1.40
C	2.30	2.70
H	1.60	1.80
J	.00	0.10
K	1.0	1.1
L	0.20	0.40
M	0.10	0.15
$\alpha$	0°	8°
All Dimensions in mm		

## Suggested Pad Layout

SOD323



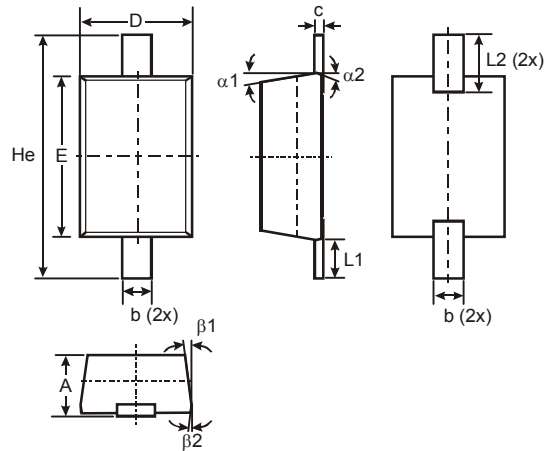
Dimensions	Value (in mm)
G	1.520
X	0.590
X1	2.700
Y	0.450

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

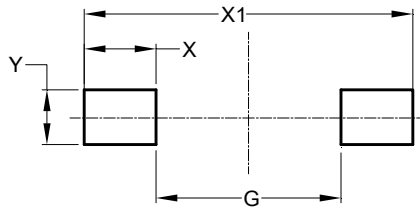
SOD323F



SOD323F			
Dim	Min	Max	Typ
A	0.60	0.75	-
b	0.25	0.35	-
c	0.05	0.26	-
D	1.15	1.35	1.25
E	1.60	1.80	1.70
He	2.30	2.70	2.50
L1	0.30	0.50	0.40
L2	0.41	0.61	0.51
alpha1	-	-	7°
alpha2	-	-	3°
beta1	-	-	7°
beta2	-	-	3°
All Dimensions in mm			

## Suggested Pad Layout

SOD323F

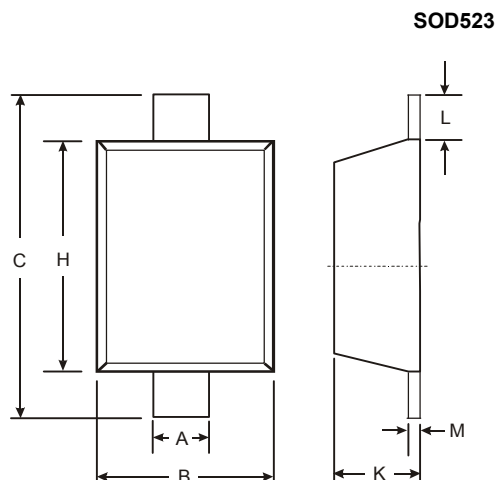


Dimensions	Value (in mm)
G	1.280
X	0.710
X1	2.700
Y	0.403

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

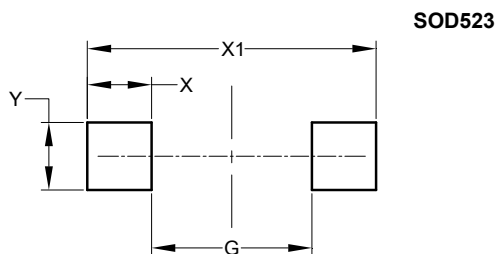
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



<b>SOD523</b>		
Dim	Min	Max
A	0.25	0.35
B	0.70	0.90
C	1.50	1.70
H	1.10	1.30
K	0.55	0.65
L	0.10	0.30
M	0.10	0.12
All Dimensions in mm		

## Suggested Pad Layout



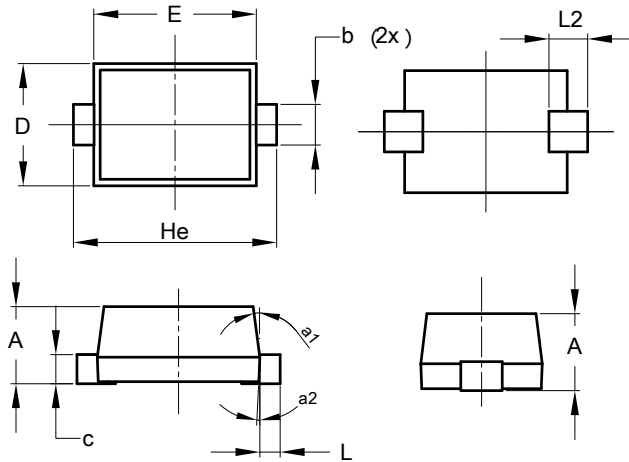
Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

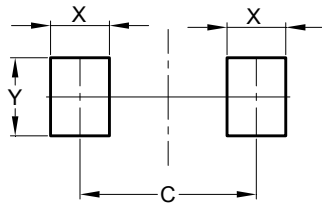
SOD923 (0.2mm Lead Width)



SOD923 (0.2mm Lead Width)			
Dim	Min	Max	Typ
A	0.34	0.40	0.37
b	0.15	0.25	0.20
c	0.070	0.170	0.120
D	0.55	0.65	0.60
E	0.75	0.85	0.80
He	0.95	1.05	1.00
L	0.05	0.15	0.10
L2	0.190 REF		
a1	0°	8°	7°
a2	2°	4°	3°
All Dimensions in mm			

## Suggested Pad Layout

SOD923 (0.2mm Lead Width)



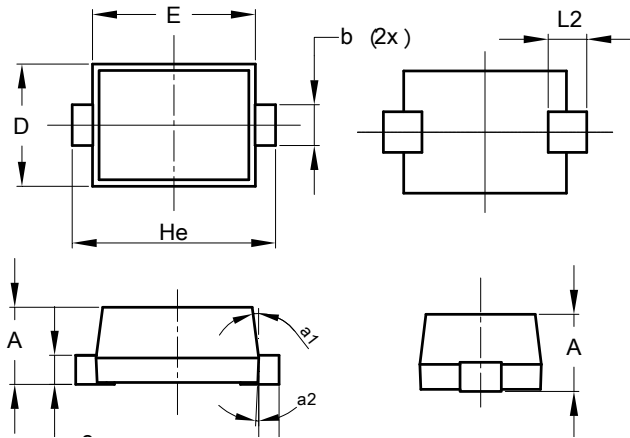
Dimensions	Value (in mm)
C	0.900
X	0.300
Y	0.400

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

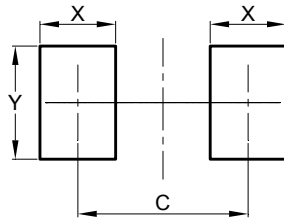
SOD923 (0.3mm Lead Width)



SOD923 (0.3mm Lead Width)			
Dim	Min	Max	Typ
A	0.34	0.40	0.37
b	0.25	0.35	0.30
c	0.05	0.15	0.10
D	0.55	0.65	0.60
E	0.75	0.85	0.80
He	0.95	1.05	1.00
L	0.05	0.15	0.10
L2	0.190 REF		
a1	0°	8°	7°
a2	2°	4°	3°
All Dimensions in mm			

## Suggested Pad Layout

SOD923 (0.3mm Lead Width)



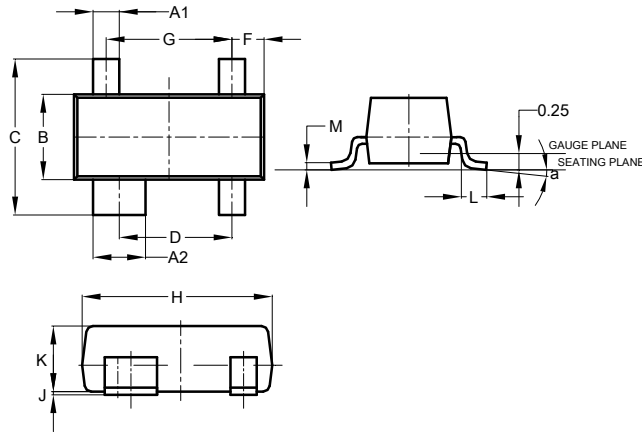
Dimensions	Value (in mm)
C	0.900
X	0.400
Y	0.600

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

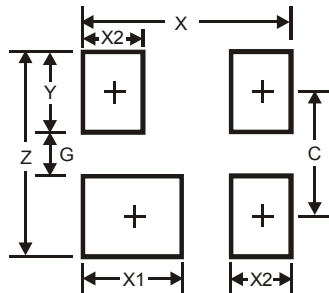
SOT143



SOT143			
Dim	Min	Max	Typ
A1	0.37	0.51	0.400
A2	0.77	0.93	0.800
B	1.20	1.40	1.30
C	2.28	2.48	2.38
D	1.58	1.83	1.72
F	0.45	0.60	0.49
G	1.78	2.03	1.92
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.89	1.00	-
L	0.46	0.60	0.50
M	0.085	0.18	0.11
a	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

SOT143

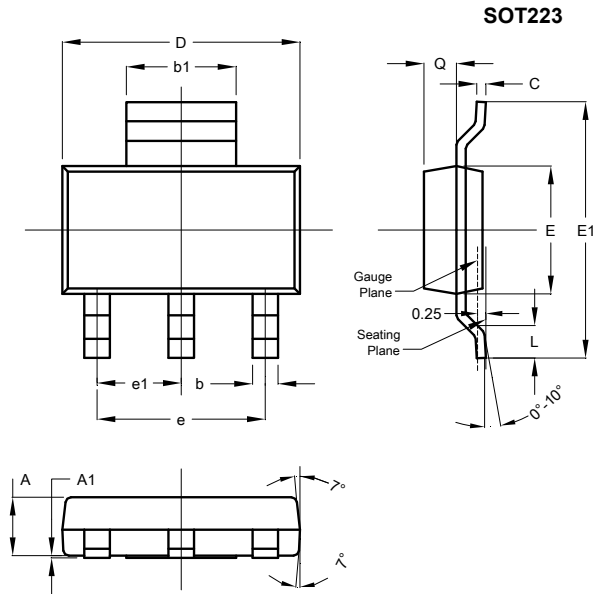


Dimensions	Value (in mm)
Z	2.70
G	1.30
X	2.50
X1	1.0
X2	0.60
Y	0.70
C	2.0

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

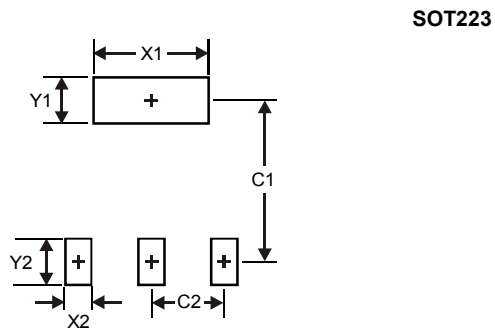
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



SOT223			
Dim	Min	Max	Typ
A	1.55	1.65	1.60
A1	0.010	0.15	0.05
b	2.90	3.10	3.00
b1	0.60	0.80	0.70
C	0.20	0.30	0.25
D	6.45	6.55	6.50
E	3.45	3.55	3.50
E1	6.90	7.10	7.00
e	-	-	4.60
e1	-	-	2.30
L	0.85	1.05	0.95
Q	0.84	0.94	0.89
All Dimensions in mm			

## Suggested Pad Layout



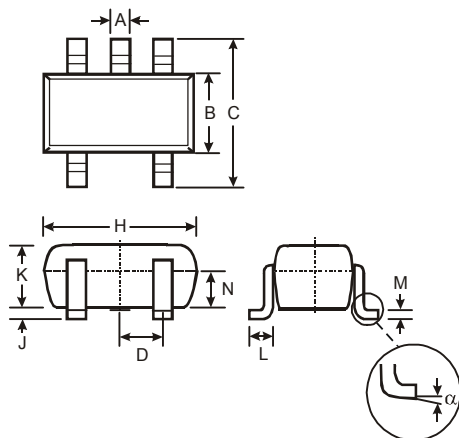
Dimensions	Value (in mm)
X1	3.3
X2	1.2
Y1	1.6
Y2	1.6
C1	6.4
C2	2.3

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

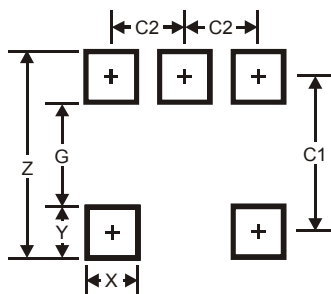
### SOT25



SOT25			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	-	-	0.95
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
N	0.70	0.80	0.75
$\alpha$	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

### SOT25



Dimensions	SOT25
Z	3.20
G	1.60
X	0.55
Y	0.80
C1	2.40
C2	0.95

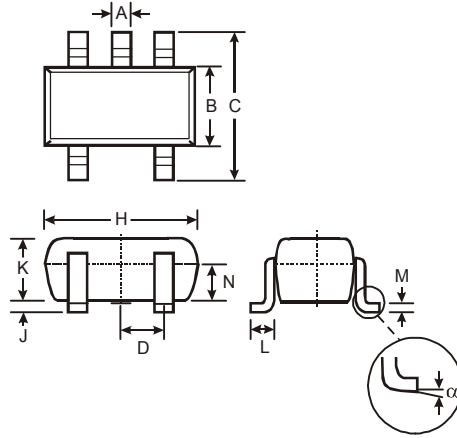
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

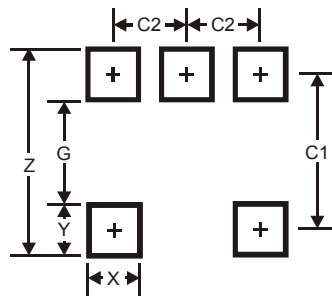
SOT353



SOT353			
Dim	Min	Max	Typ
A	0.10	0.30	0.25
B	1.15	1.35	1.30
C	2.00	2.20	2.10
D	0.65 Typ		
F	0.40	0.45	0.425
H	1.80	2.20	2.15
J	0	0.10	0.05
K	0.90	1.00	1.00
L	0.25	0.40	0.30
M	0.10	0.22	0.11
α	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

SOT353



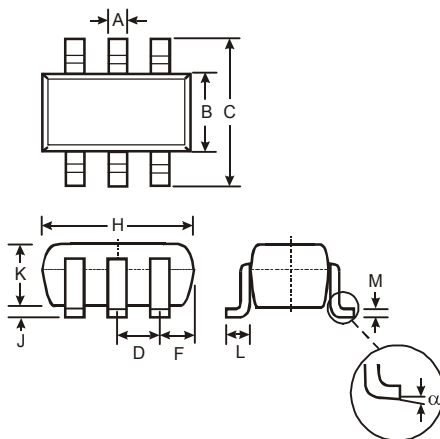
Dimensions	SOT353
Z	2.5
G	1.3
X	0.42
Y	0.6
C1	1.9
C2	0.65

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

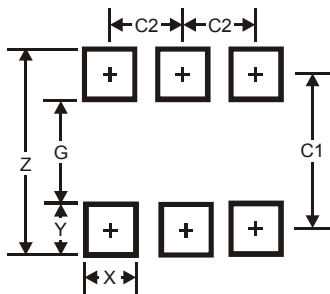
SC74R / SOT26



SC74R / SOT26			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	-	-	0.95
F	-	-	-
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
α	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

SC74R / SOT26



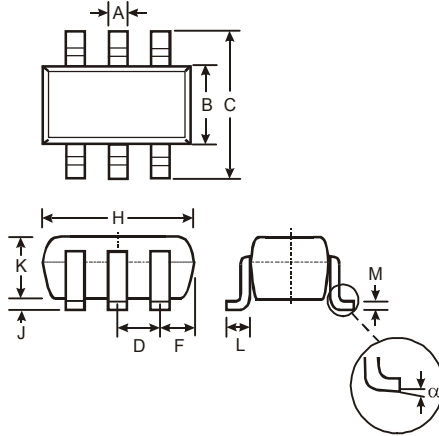
Dimensions	SC74R / SOT26
Z	3.20
G	1.60
X	0.55
Y	0.80
C1	2.40
C2	0.95

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

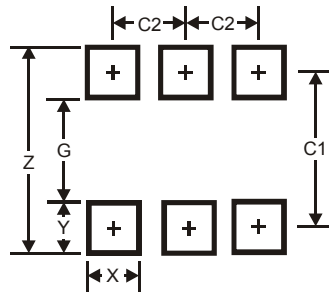
SOT363



SOT363			
Dim	Min	Max	Typ
A	0.10	0.30	0.25
B	1.15	1.35	1.30
C	2.00	2.20	2.10
D	0.65 Typ		
F	0.40	0.45	0.425
H	1.80	2.20	2.15
J	0	0.10	0.05
K	0.90	1.00	1.00
L	0.25	0.40	0.30
M	0.10	0.22	0.11
α	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

SOT363



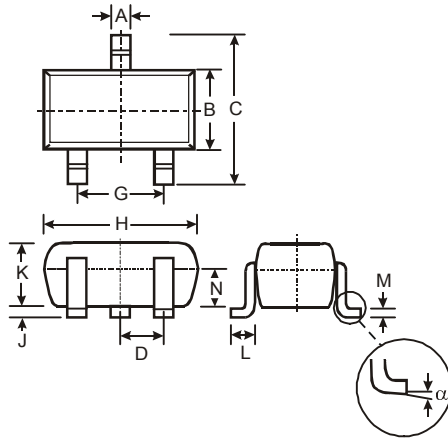
Dimensions	SOT363
Z	2.5
G	1.3
X	0.42
Y	0.6
C1	1.9
C2	0.65

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

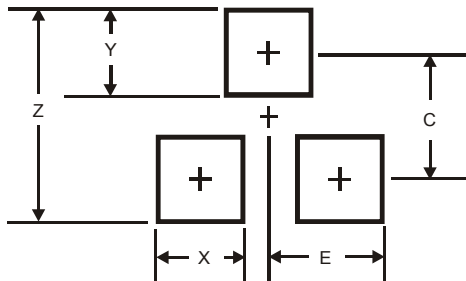
SC59



SC59			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	-	-	0.95
G	-	-	1.90
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
N	0.70	0.80	0.75
$\alpha$	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

SC59



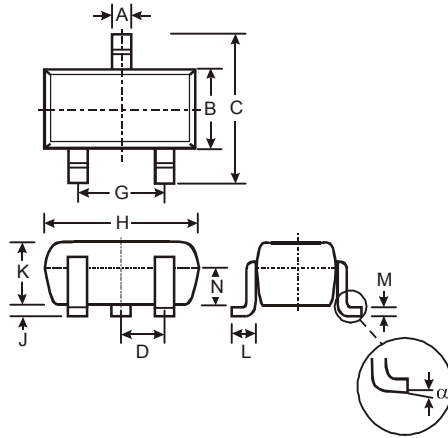
Dimensions	SC59
Z	3.4
X	0.8
Y	1.0
C	2.4
E	1.35

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

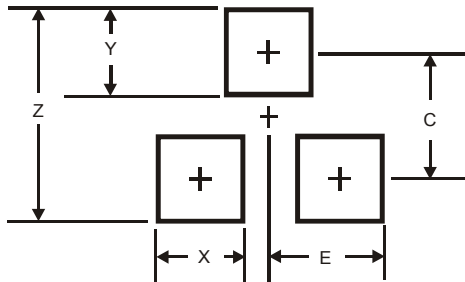
SOT523



SOT523			
Dim	Min	Max	Typ
A	0.15	0.30	0.22
B	0.75	0.85	0.80
C	1.45	1.75	1.60
D	-	-	0.50
G	0.90	1.10	1.00
H	1.50	1.70	1.60
J	0.00	0.10	0.05
K	0.60	0.80	0.75
L	0.10	0.30	0.22
M	0.10	0.20	0.12
N	0.45	0.65	0.50
α	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

SOT523



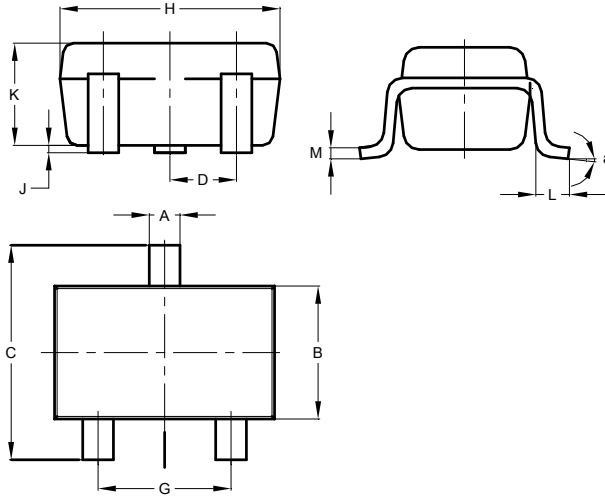
Dimensions	SOT523
Z	1.8
X	0.4
Y	0.51
C	1.3
E	0.7

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

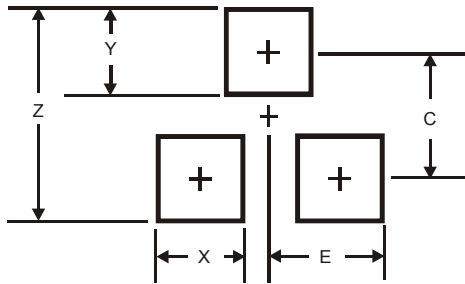
SOT323



SOT323			
Dim	Min	Max	Typ
A	0.25	0.40	0.30
B	1.15	1.35	1.30
C	2.00	2.20	2.10
D	0.650 BSC		
F	0.375	0.475	0.425
G	1.20	1.40	1.30
H	1.80	2.20	2.15
J	0.00	0.10	0.05
K	0.90	1.00	0.95
L	0.25	0.40	0.30
M	0.10	0.18	0.11
a	8°C		
All Dimensions in mm			

## Suggested Pad Layout

SOT323

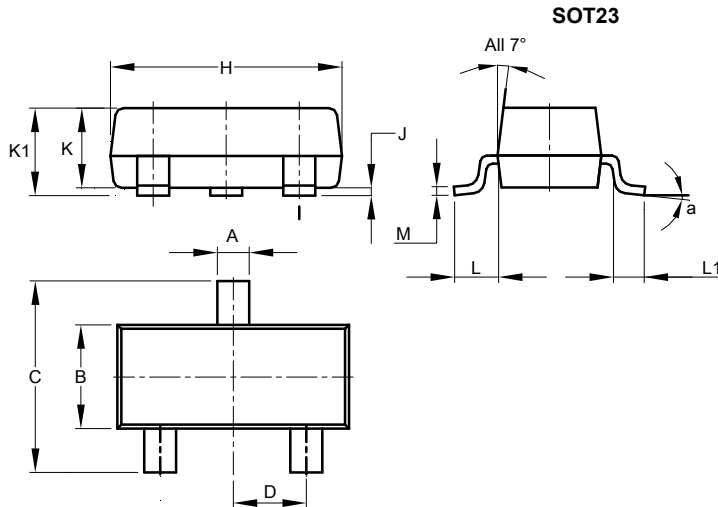


Dimensions	SOT323
Z	2.8
X	0.7
Y	0.9
C	1.9
E	1.0

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

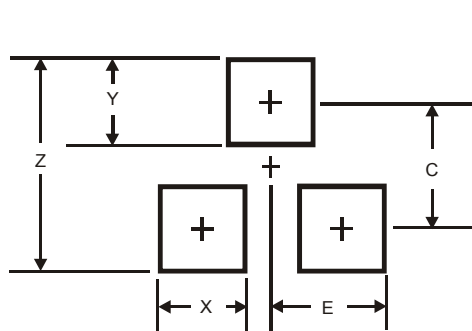
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



SOT23			
Dim	Min	Max	Typ
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.890	1.00	0.975
K1	0.903	1.10	1.025
L	0.45	0.61	0.55
L1	0.25	0.55	0.40
M	0.085	0.150	0.110
a	8°		
All Dimensions in mm			

## Suggested Pad Layout

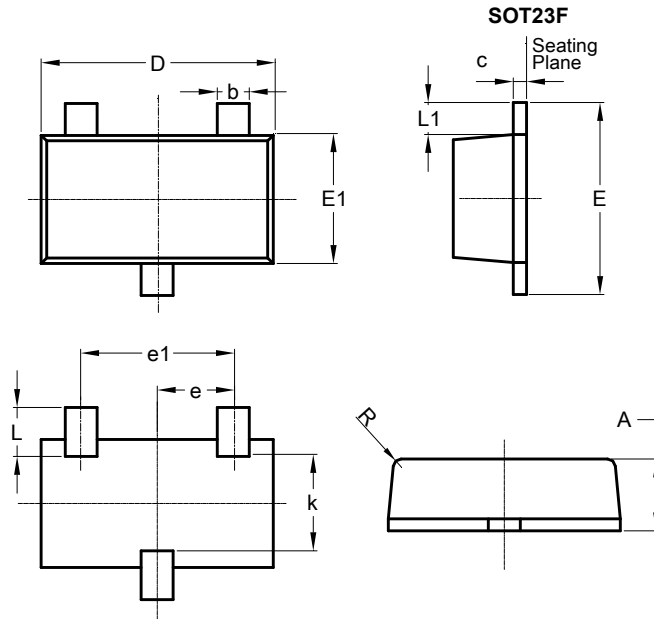


Dimensions	SOT23
Z	2.9
X	0.8
Y	0.9
C	2.0
E	1.35

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

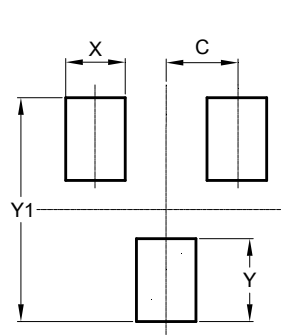
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



SOT23F			
Dim	Min	Max	Typ
A	0.80	1.00	0.90
b	0.35	0.45	0.40
c	0.06	0.16	0.11
D	2.80	3.00	2.90
e	-	-	0.95
e1	-	-	1.90
E	2.30	2.50	2.40
E1	1.50	1.70	1.60
k	1.10	1.26	1.18
L	0.48	0.68	0.58
L1	0.39	0.41	0.40
R	0.05	0.15	0.10
All Dimensions in mm			

## Suggested Pad Layout



Dimensions	Value (in mm)
C	0.95
X	0.80
Y	1.110
Y1	3.000

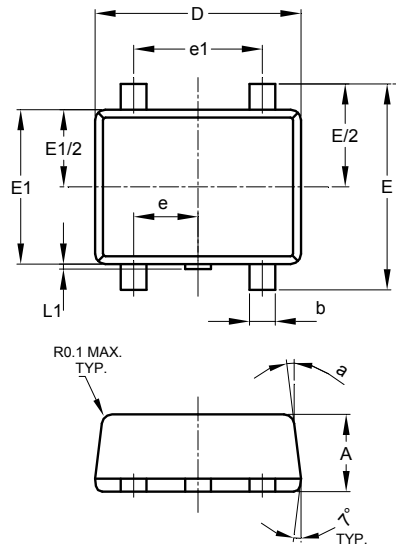
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

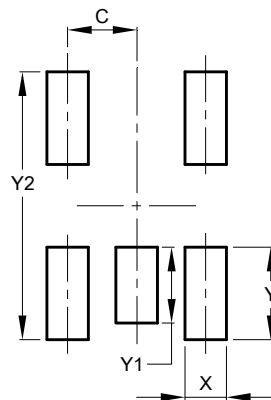
SOT543



SOT543			
Dim	Min	Max	Typ
A	0.55	0.60	0.60
b	0.15	0.30	0.20
c	0.10	0.18	0.15
D	1.50	1.70	1.60
E	1.55	1.70	1.60
E1	1.10	1.25	1.20
e	0.50 BSC		
e1	1.00 BSC		
L	0.10	0.30	0.20
L1	0.06	0.10	0.08
a	6°	8°	7°
All Dimensions in mm			

## Suggested Pad Layout

SOT543



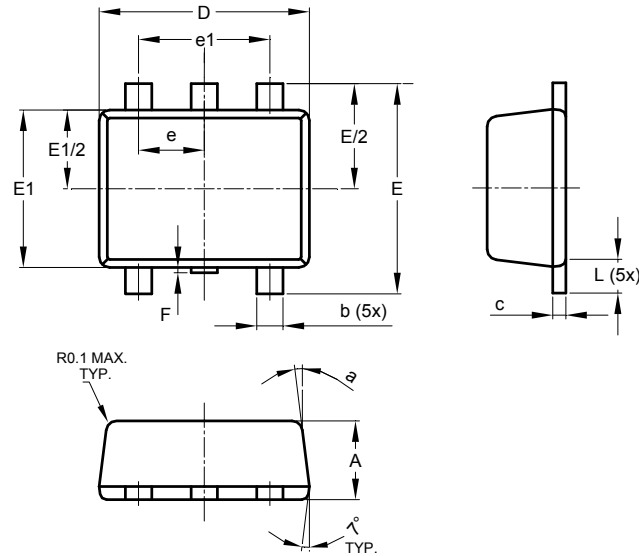
Dimensions	Value (in mm)
C	0.500
X	0.300
Y	0.670
Y1	0.550
Y2	1.940

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

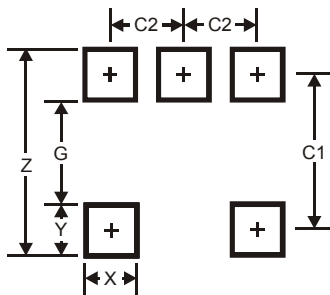
SOT553



SOT553			
Dim	Min	Max	Typ
A	0.55	0.62	0.60
b	0.15	0.30	0.20
c	0.10	0.18	0.15
D	1.50	1.70	1.60
E	1.55	1.70	1.60
E1	1.10	1.25	1.20
e	0.50 BSC		
e1	1.00 BSC		
F	0.00	0.10	—
L	0.10	0.30	0.20
a	6°	8°	7°
All Dimensions in mm			

## Suggested Pad Layout

SOT553



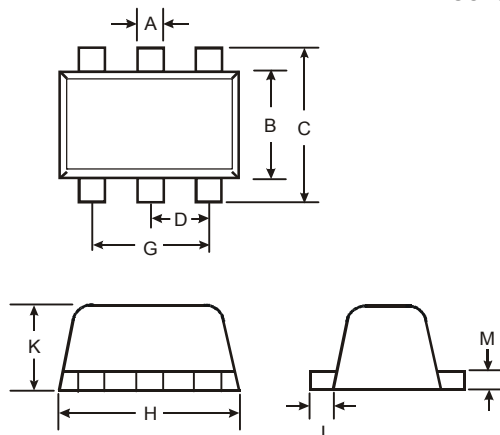
Dimensions	SOT553
Z	2.2
G	1.2
X	0.375
Y	0.5
C1	1.7
C2	0.5

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

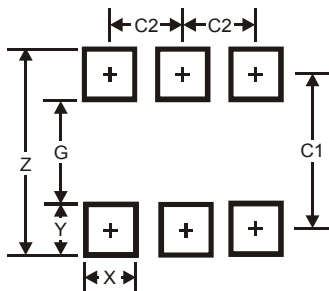
SOT563



SOT563			
Dim	Min	Max	Typ
A	0.15	0.30	0.20
B	1.10	1.25	1.20
C	1.55	1.70	1.60
D	-	-	0.50
G	0.90	1.10	1.00
H	1.50	1.70	1.60
K	0.55	0.60	0.60
L	0.10	0.30	0.20
M	0.10	0.18	0.11
All Dimensions in mm			

## Suggested Pad Layout

SOT563



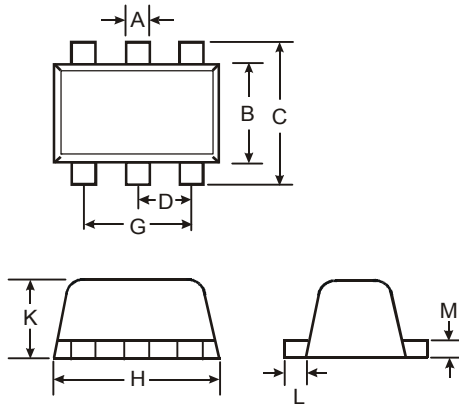
Dimensions	SOT563
Z	2.2
G	1.2
X	0.375
Y	0.5
C1	1.7
C2	0.5

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

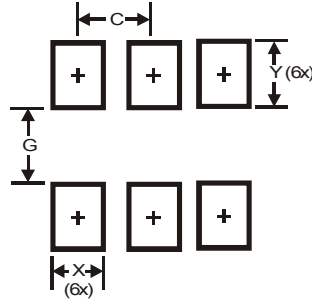
### SOT666



SOT666			
Dim	Min	Max	Typ
A	0.15	0.30	0.20
B	1.10	1.25	1.20
C	1.55	1.70	1.60
D	-	0.50	-
G	0.90	1.10	1.00
H	1.50	1.70	1.60
K	0.55	0.60	0.60
L	0.10	0.30	0.20
M	0.10	0.18	0.15
All Dimensions in mm			

## Suggested Pad Layout

### SOT666



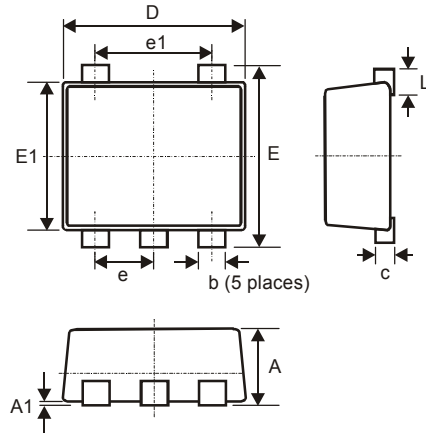
Dimensions	Value (in mm)
C	0.50
G	0.80
X	0.35
Y	0.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

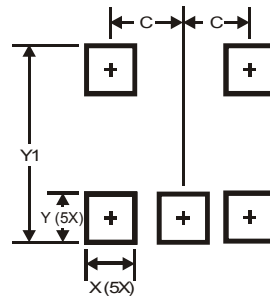
SOT953



SOT953			
Dim	Min	Max	Typ
A	0.40	0.50	0.45
A1	0	0.05	-
b	0.10	0.20	0.15
c	0.12	0.18	0.15
D	0.95	1.05	1.00
E	0.95	1.05	1.00
E1	0.75	0.85	0.80
e	-	-	0.35
e1	-	-	0.70
L	0.05	0.15	0.10
All Dimensions in mm			

## Suggested Pad Layout

SOT953



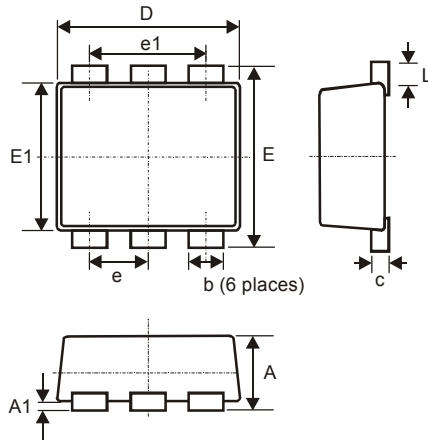
Dimensions	Value (in mm)
C	0.350
X	0.200
Y	0.200
Y1	1.100

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

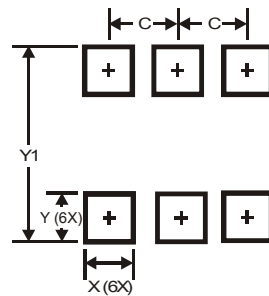
SOT963



SOT963			
Dim	Min	Max	Typ
A	0.40	0.50	0.45
A1	0	0.05	-
c	0.120	0.180	0.150
D	0.95	1.05	1.00
E	0.95	1.05	1.00
E1	0.75	0.85	0.80
L	0.05	0.15	0.10
b	0.10	0.20	0.15
e	0.35 Typ		
e1	0.70 Typ		
All Dimensions in mm			

## Suggested Pad Layout

SOT963



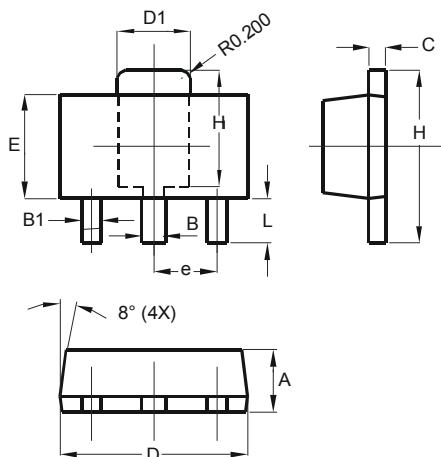
Dimensions	Value (in mm)
C	0.350
X	0.200
Y	0.200
Y1	1.100

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

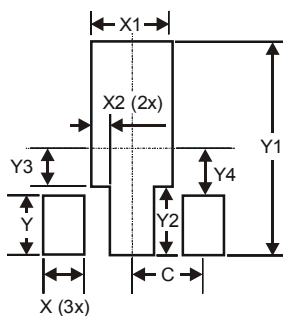
SOT89



SOT89		
Dim	Min	Max
A	1.40	1.60
B	0.44	0.62
B1	0.35	0.54
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
e	1.50 Typ	
H	3.94	4.25
H1	2.63	2.93
L	0.89	1.20
All Dimensions in mm		

## Suggested Pad Layout

SOT89



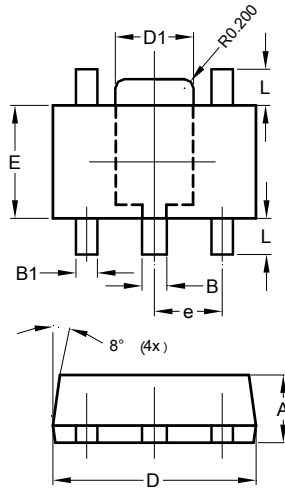
Dimensions	Value (in mm)
X	0.900
X1	1.733
X2	0.416
Y	1.300
Y1	4.600
Y2	1.475
Y3	0.950
Y4	1.125
C	1.500

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

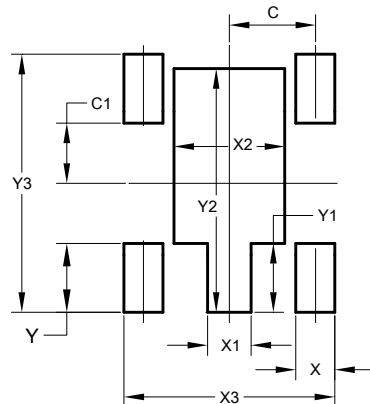
SOT89-5



SOT89-5			
Dim	Min	Max	Typ
A	1.40	1.60	1.50
B	0.50	0.62	0.56
B1	0.44	0.54	0.48
C	0.35	0.43	0.38
D	4.40	4.60	4.50
D1	1.62	1.83	1.733
E	2.40	2.60	2.50
e	-	-	1.50
H	3.95	4.25	4.10
L	0.65	0.95	0.80
All Dimensions in mm			

## Suggested Pad Layout

SOT89-5



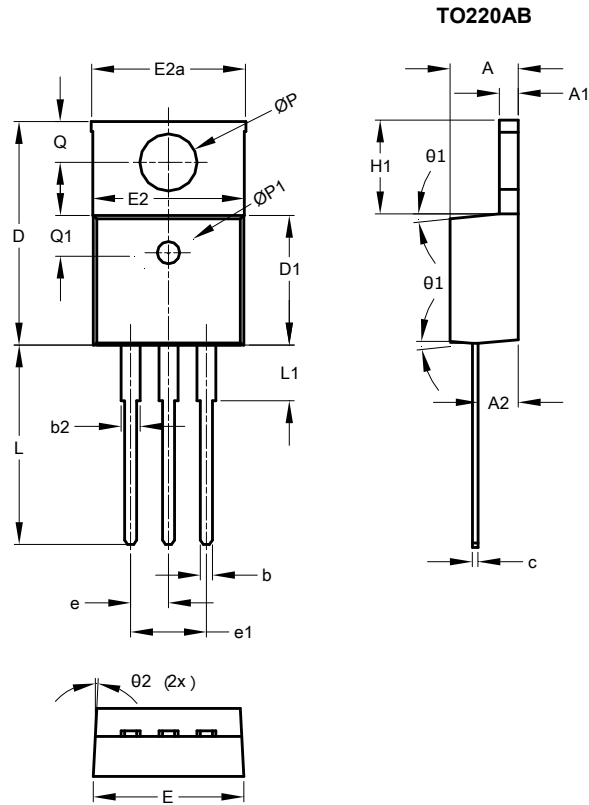
Dimensions	Value (in mm)
C	1.500
C1	1.050
X	0.680
X1	0.760
X2	1.930
X3	3.680
Y	1.200
Y1	1.200
Y2	4.250
Y3	4.500

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

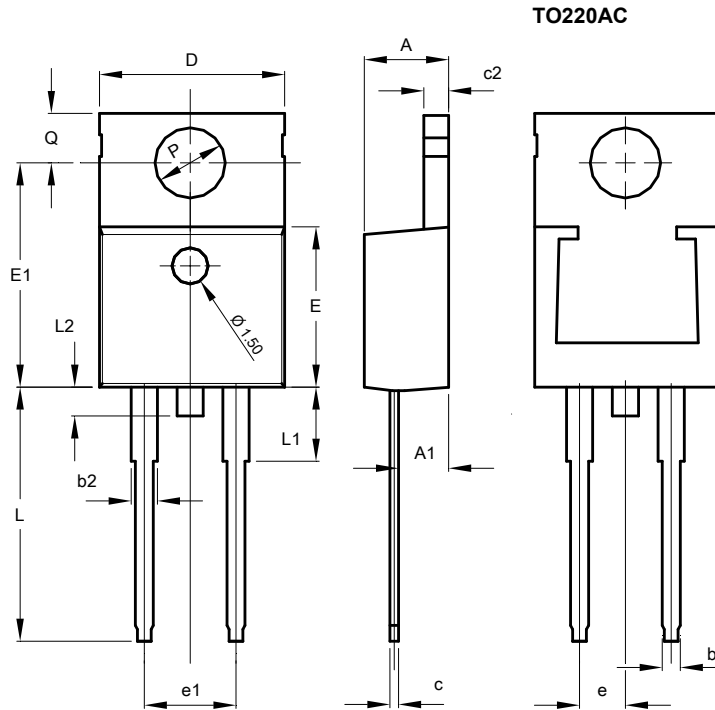


TO220AB			
Dim	Min	Max	Typ
A	4.40	4.70	4.57
A1	1.22	1.33	1.27
A2	2.59	2.79	2.69
b	0.77	0.90	0.813
b2	1.20	1.36	1.27
c	0.340	0.470	0.381
D	14.70	15.30	15.00
D1	8.60	8.80	8.70
e	2.54 BSC		
e1	5.08 BSC		
E	10.00	10.20	10.10
E2	10.06	10.26	10.16
E2a	10.10	10.35	10.25
H1	6.10	6.50	6.30
L	13.20	13.50	13.40
L1	-	4.00	3.75
Q	2.60	2.90	2.743
Q1	2.50 REF		
ØP	3.76	3.88	3.84
ØP1	1.40	1.60	1.50
Ø1	5°	9°	7°
Ø2	1°	5°	3°
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



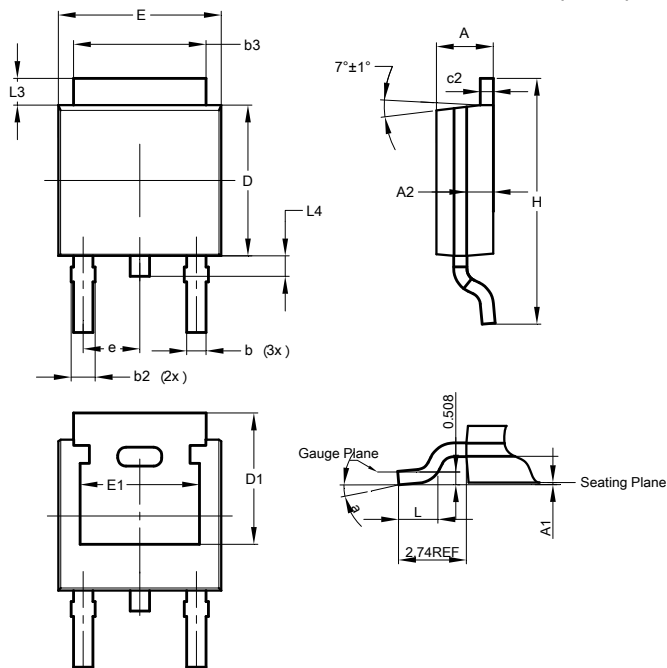
TO220AC			
Dim	Min	Max	Typ
A	4.470	4.670	-
A1	2.520	2.820	-
b	0.710	0.910	0.813
b2	1.170	1.370	1.270
c	0.279	0.483	-
c2	1.170	1.370	-
D	10.010	10.310	-
E	8.763	9.017	8.890
E1	12.294	12.548	12.446
e	2.54BSC		
e1	4.980	5.180	-
L	13.700	14.100	-
L1	4.04	4.19	4.11
L2	-	1.60	-
ØP	3.790	3.890	-
Q	2.642	2.946	2.743
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

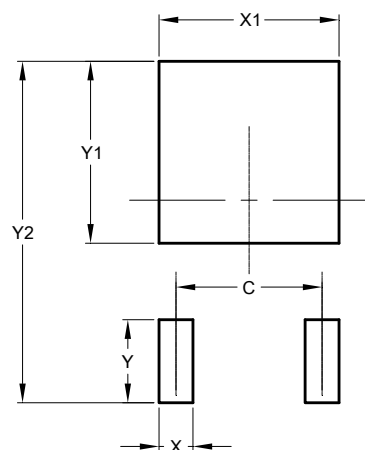
TO252 (DPAK)



TO252 (DPAK)			
Dim	Min	Max	Typ
A	2.19	2.39	2.29
A1	0.00	0.13	0.08
A2	0.97	1.17	1.07
b	0.64	0.88	0.783
b2	0.76	1.14	0.95
b3	5.21	5.46	5.33
c2	0.45	0.58	0.531
D	6.00	6.20	6.10
D1	5.21	-	-
e	-	-	2.286
E	6.45	6.70	6.58
E1	4.32	-	-
H	9.40	10.41	9.91
L	1.40	1.78	1.59
L3	0.88	1.27	1.08
L4	0.64	1.02	0.83
a	0°	10°	-
All Dimensions in mm			

## Suggested Pad Layout

TO252 (DPAK)



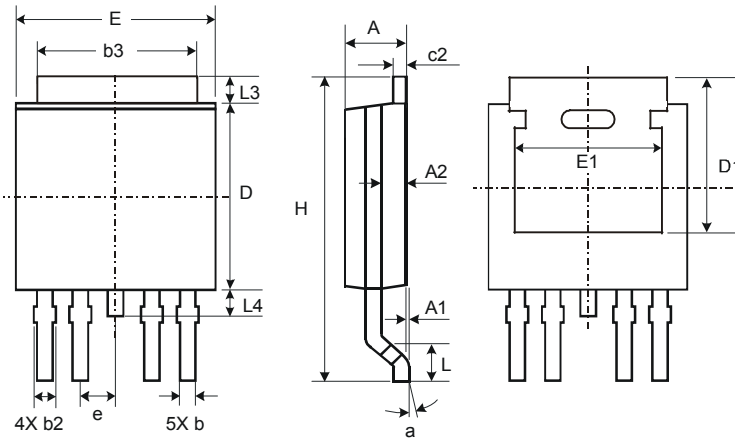
Dimensions	Value (in mm)
C	4.572
X	1.060
X1	5.632
Y	2.600
Y1	5.700
Y2	10.700

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

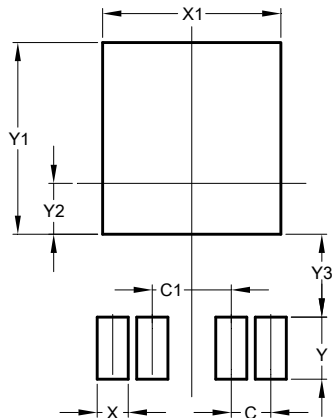
TO252-4



TO252-4			
Dim	Min	Max	Typ
A	2.19	2.39	2.29
A1	0.00	0.13	0.08
A2	0.97	1.17	1.07
b	0.51	0.71	0.583
b2	0.61	0.79	0.70
b3	5.21	5.46	5.33
c2	0.45	0.58	0.531
D	6.00	6.20	6.10
D1	5.21	-	-
e	-	-	1.27
E	6.45	6.70	6.58
E1	4.32	-	-
H	9.40	10.41	9.91
L	1.40	1.78	1.59
L3	0.88	1.27	1.08
L4	0.64	1.02	0.83
a	0°	10°	-
All Dimensions in mm			

## Suggested Pad Layout

TO252-4

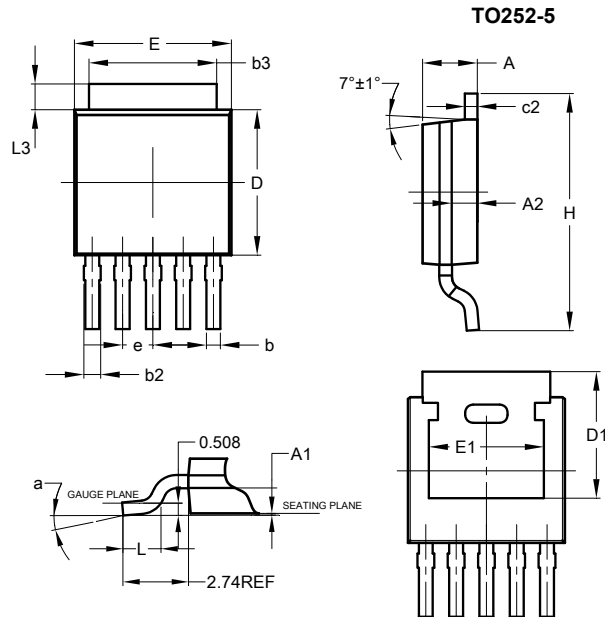


Dimensions	Value (in mm)
C	1.27
C1	2.54
X	1.00
X1	5.73
Y	2.00
Y1	6.17
Y2	1.64
Y3	2.66

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

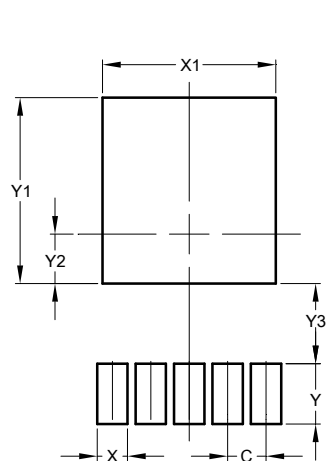
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



TO252-5			
Dim	Min	Max	Typ
A	2.19	2.39	2.29
A1	0.00	0.13	0.08
A2	0.97	1.17	1.07
b	0.51	0.71	0.583
b2	0.61	0.79	0.70
b3	5.21	5.46	5.33
c2	0.45	0.58	0.531
D	6.00	6.20	6.10
D1	5.21	-	-
e	-	-	1.27
E	6.45	6.70	6.58
E1	4.32	-	-
H	9.40	10.41	9.91
L	1.40	1.78	1.59
L3	0.88	1.27	1.08
a	0°	10°	-
All Dimensions in mm			

## Suggested Pad Layout



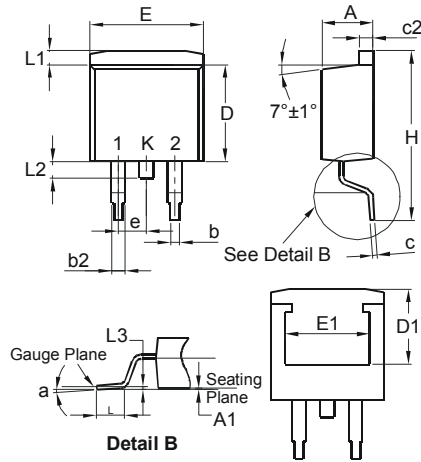
Dimensions	Value (in mm)
C	1.27
X	1.00
X1	5.73
Y	2.00
Y1	6.17
Y2	1.64
Y3	2.66

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

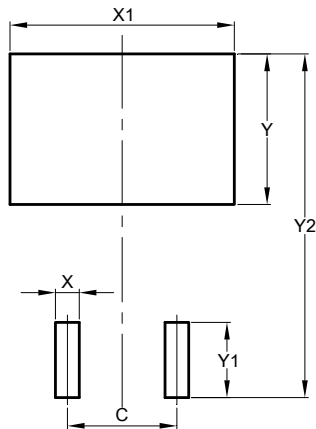
TO263 (D<sup>2</sup>PAK)



TO263		
Dim	Min	Max
A	4.07	4.82
A1	0.00	0.25
b	0.51	0.99
b2	1.15	1.77
c	0.356	0.73
c2	1.143	1.65
D	8.39	9.65
D1	6.55	—
E	9.66	10.66
E1	6.23	—
e	2.54 Typ	
H	14.61	15.87
L	1.78	2.79
L1	—	1.67
L2	—	1.77
a	0°	8°
All Dimensions in mm		

## Suggested Pad Layout

TO263 (D<sup>2</sup>PAK)



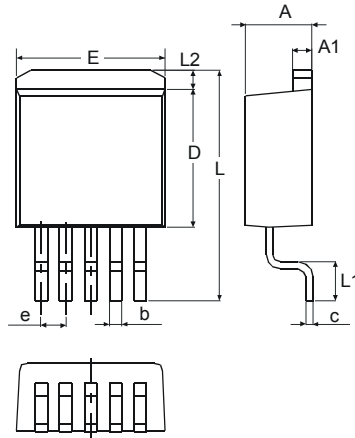
Dimensions	Value (in mm)
C	5.08
X	1.10
X1	10.41
Y	3.50
Y1	7.01
Y2	15.99

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

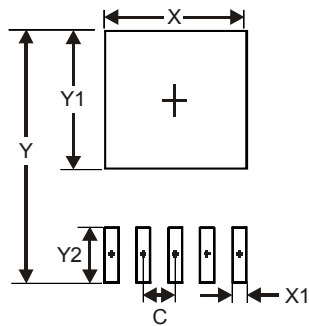
TO263-5



TO263-5		
Dim	Min	Max
A	4.07	4.85
A1	1.14	1.40
b	0.66	1.02
c	0.36	0.64
D	8.65	9.65
E	9.78	10.54
e	1.57	1.85
L	14.61	15.88
L1	2.29	2.79
L2	-	2.92
All Dimensions in mm		

## Suggested Pad Layout

TO263-5

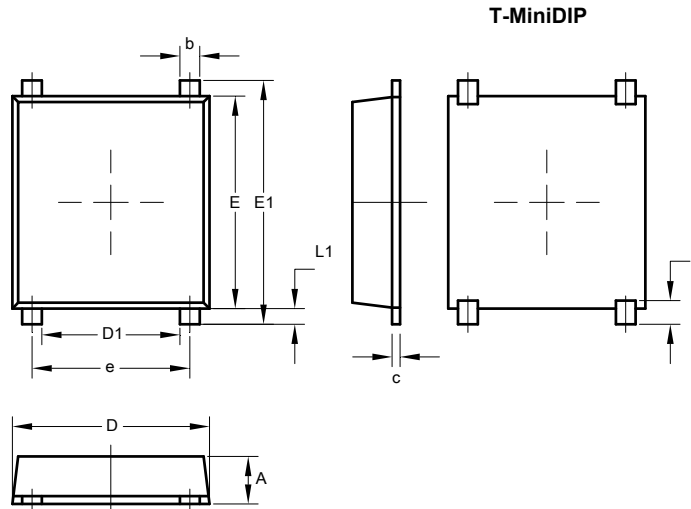


Dimensions	Value (in mm)
X	10.9
X1	1.05
Y	15.7
Y1	9.1
Y2	2.5
C	1.7

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

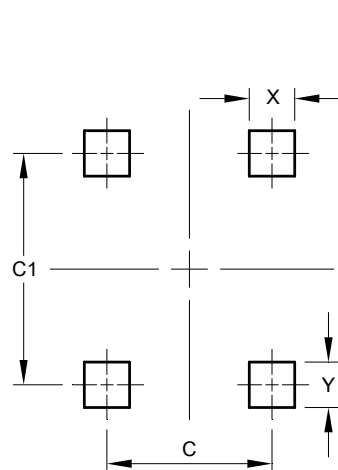
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



T-MiniDIP		
Dim	Min	Max
A	1.15	1.27
b	0.60	0.70
c	0.15	0.25
D	4.90	5.10
D1	3.20	3.50
E	5.30	5.50
E1	6.00	6.40
e	3.90	4.10
L	0.25	0.80
L1	0.25	0.55
All Dimensions in mm		

## Suggested Pad Layout



Dimensions	Value (in mm)
C	4.00
C1	5.60
X	0.750
Y	0.450

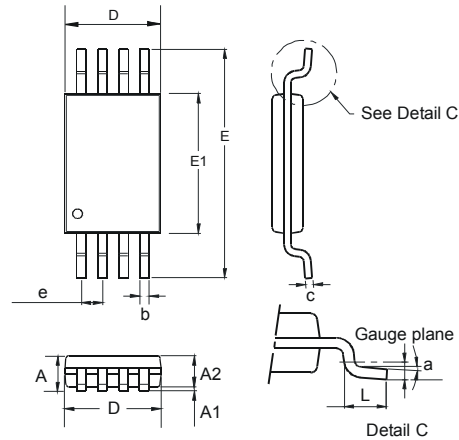
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

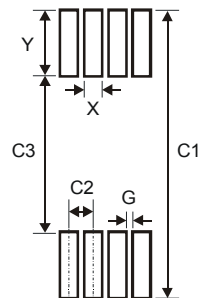
### TSSOP-8



TSSOP-8			
Dim	Min	Max	Typ
a	0.09	—	—
A	—	1.20	—
A1	0.05	0.15	—
A2	0.825	1.025	0.925
b	0.19	0.30	—
c	0.09	0.20	—
D	2.90	3.10	3.025
e	—	—	0.65
E	—	—	6.40
E1	4.30	4.50	4.425
L	0.45	0.75	0.60
All Dimensions in mm			

## Suggested Pad Layout

### TSSOP-8



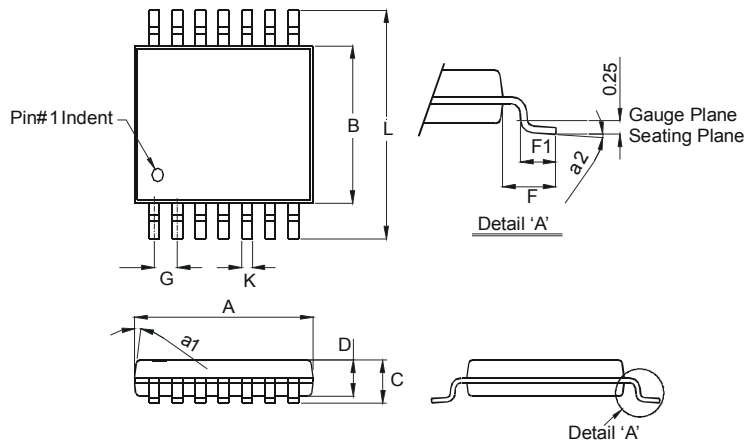
Dimensions	Value (in mm)
X	0.45
Y	1.78
C1	7.72
C2	0.65
C3	4.16
G	0.20

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

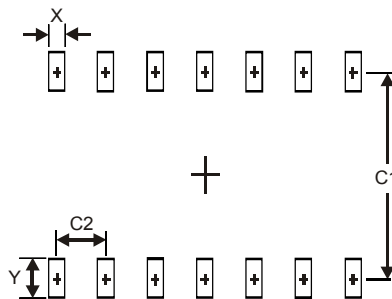
TSSOP-14



TSSOP-14		
Dim	Min	Max
a1	7° (4X)	
a2	0°	8°
A	4.9	5.10
B	4.30	4.50
C	-	1.2
D	0.8	1.05
F	1.00 Typ	
F1	0.45	0.75
G	0.65 Typ	
K	0.19	0.30
L	6.40 Typ	
All Dimensions in mm		

## Suggested Pad Layout

TSSOP-14

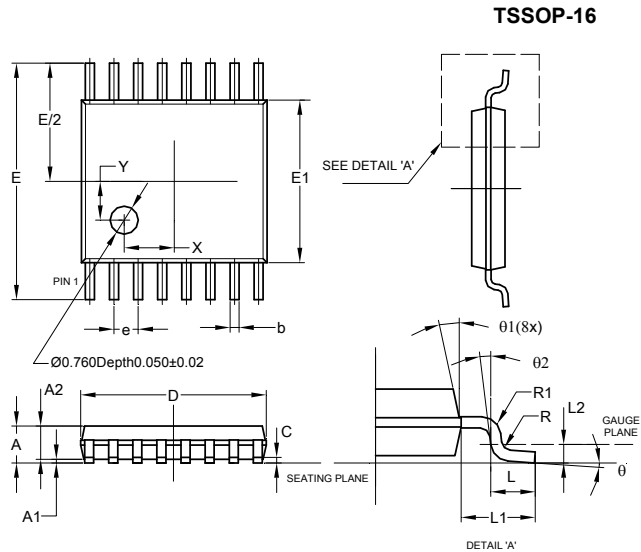


Dimensions	Value (in mm)
X	0.45
Y	1.45
C1	5.9
C2	0.65

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

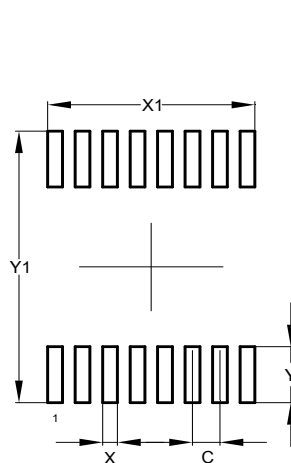
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



TSSOP-16			
Dim	Min	Max	Typ
A	-	1.08	-
A1	0.05	0.15	-
A2	0.80	0.93	-
b	0.19	0.30	-
c	0.09	0.20	-
D	4.90	5.10	-
E	6.40 BSC		
E1	4.30	4.50	-
e	0.65 BSC		
L	0.45	0.75	-
L1	1.00 REF		
L2	0.25 BSC		
R / R1	0.09	-	-
X	-	-	1.350
Y	-	-	1.050
θ	0°	8°	-
θ1	5°	15°	-
θ2	0°	-	-
All Dimensions in mm			

## Suggested Pad Layout

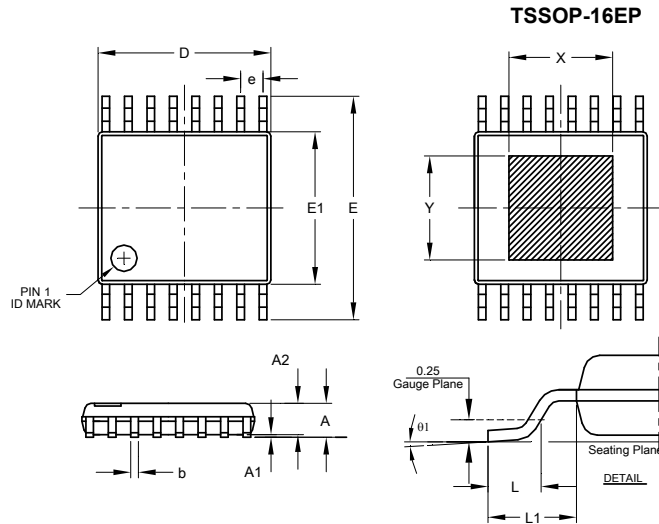


Dimensions	Value (in mm)
C	0.650
X	0.350
X1	4.900
Y	1.400
Y1	6.800

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

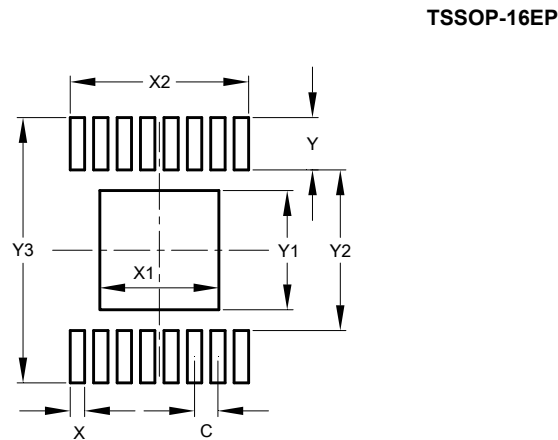
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



TSSOP-16EP			
Dim	Min	Max	Typ
<b>A</b>	-	1.20	-
<b>A1</b>	0.025	0.100	-
<b>A2</b>	0.80	1.05	0.90
<b>b</b>	0.19	0.30	-
<b>c</b>	0.09	0.20	-
<b>D</b>	4.90	5.10	5.00
<b>E</b>	6.20	6.60	6.40
<b>E1</b>	4.30	4.50	4.40
<b>e</b>	0.65 BSC		
<b>L</b>	0.45	0.75	0.60
<b>L1</b>	1.0 REF		
<b>L2</b>	0.65 BSC		
<b>X</b>	-	-	2.997
<b>Y</b>	-	-	2.997
<b>θ1</b>	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout



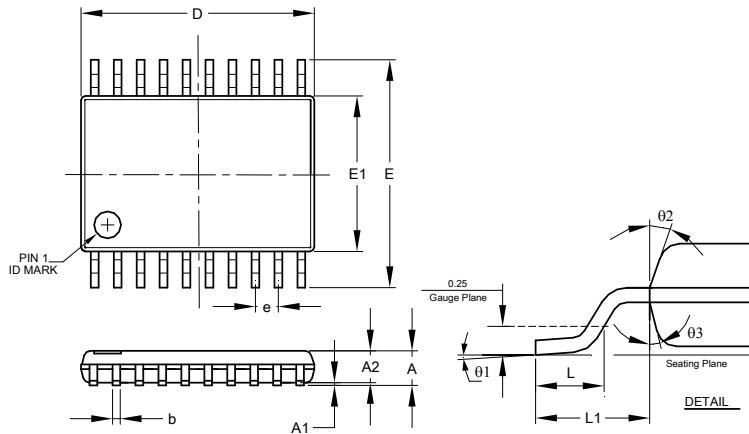
Dimensions	Value (in mm)
<b>C</b>	0.650
<b>X</b>	0.450
<b>X1</b>	3.290
<b>X2</b>	5.000
<b>Y</b>	1.450
<b>Y1</b>	3.290
<b>Y2</b>	4.450
<b>Y3</b>	7.350

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

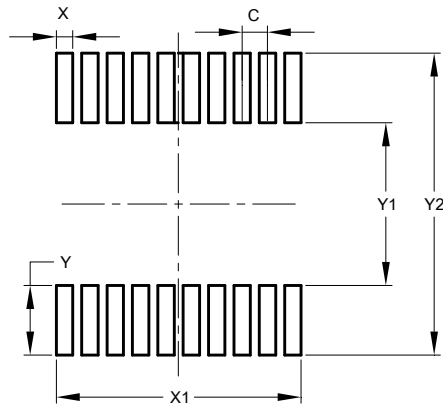
TSSOP-20



TSSOP-20			
Dim	Min	Max	Typ
A	-	1.20	-
A1	0.05	0.15	-
A2	0.80	1.05	-
b	0.19	0.30	-
c	0.09	0.20	-
D	6.40	6.60	6.50
E	6.20	6.60	6.40
E1	4.30	4.50	4.40
e	0.65 BSC		
L	0.45	0.75	0.60
L1	1.0 REF		
θ1	0°	8°	-
θ2	10°	14°	12°
θ3	10°	14°	12°
All Dimensions in mm			

## Suggested Pad Layout

TSSOP-20



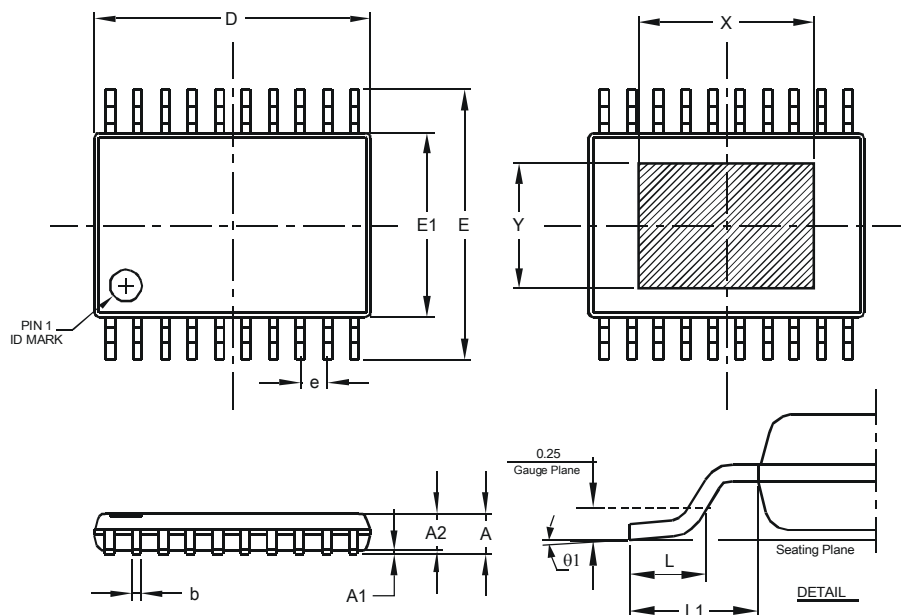
Dimensions	Value (in mm)
C	0.650
X	0.420
X1	6.270
Y	1.780
Y1	4.160
Y2	7.720

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

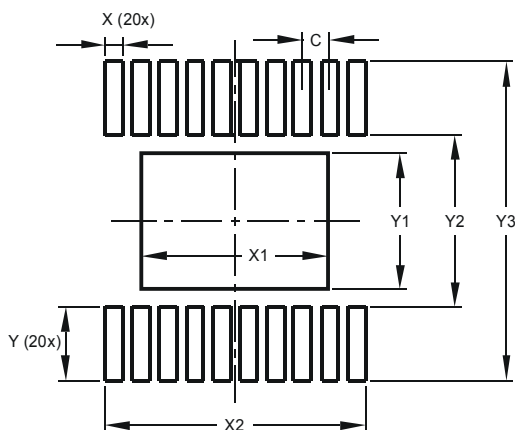
TSSOP-20EP



TSSOP-20EP			
Dim	Min	Max	Typ
A	-	1.20	-
A1	0.025	0.100	-
A2	0.80	1.05	0.90
b	0.19	0.30	-
c	0.09	0.20	-
D	6.40	6.60	6.50
E	6.20	6.60	6.40
E1	4.30	4.50	4.40
L	0.45	0.75	0.60
L1	1.0 REF		
L2	0.65 BSC		
X	-	-	4.191
Y	-	-	2.997
θ1	0°	8°	-
All Dimensions in mm			

## Suggested Pad Layout

TSSOP-20EP



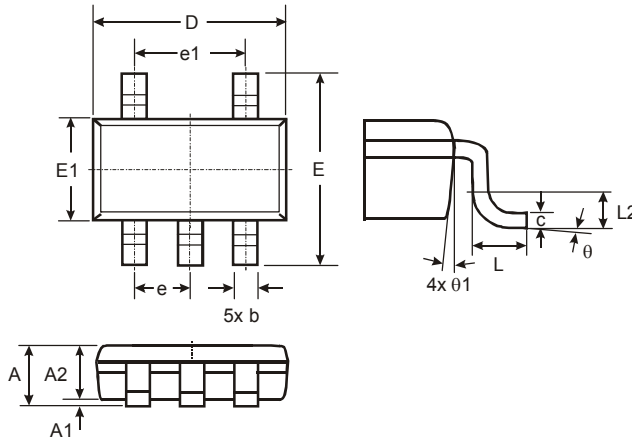
Dimensions	Value (in mm)
C	0.650
X	0.420
X1	4.490
X2	6.270
Y	1.780
Y1	3.290
Y2	4.160
Y3	7.720

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

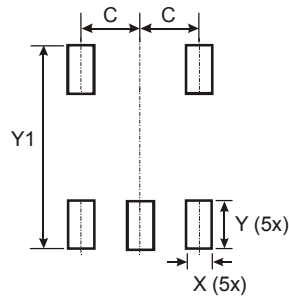
TSOT25



TSOT25			
Dim	Min	Max	Typ
A	-	1.00	-
A1	0.01	0.10	-
A2	0.84	0.90	-
D	-	-	2.90
E	-	-	2.80
E1	-	-	1.60
b	0.30	0.45	-
c	0.12	0.20	-
e	-	-	0.95
e1	-	-	1.90
L	0.30	0.50	-
L2	-	-	0.25
θ	0°	8°	4°
θ1	4°	12°	-
All Dimensions in mm			

## Suggested Pad Layout

TSOT25



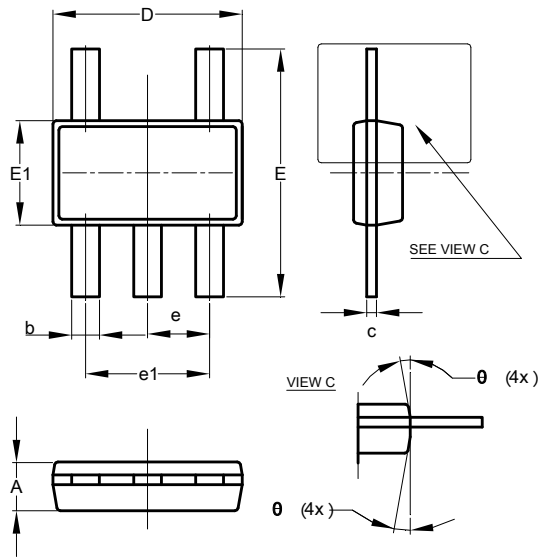
Dimensions	Value (in mm)
C	0.950
X	0.700
Y	1.000
Y1	3.199

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

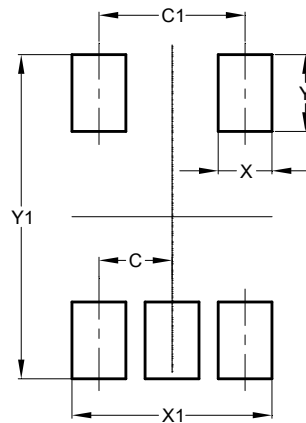
TSOT25F



TSOT25F			
Dim	Min	Max	Typ
A	0.700	0.775	0.750
b	0.350	0.500	-
c	0.100	0.200	-
D	2.800	3.100	2.900
E	3.700	3.900	3.800
E1	1.500	1.700	1.600
e	-	-	0.950
e1	-	-	1.900
θ	4°	12°	10°
All Dimensions in mm			

## Suggested Pad Layout

TSOT25F



Dimensions	Value (in mm)
C	0.950
C1	1.900
X	0.700
X1	2.600
Y	1.000
Y1	4.220

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

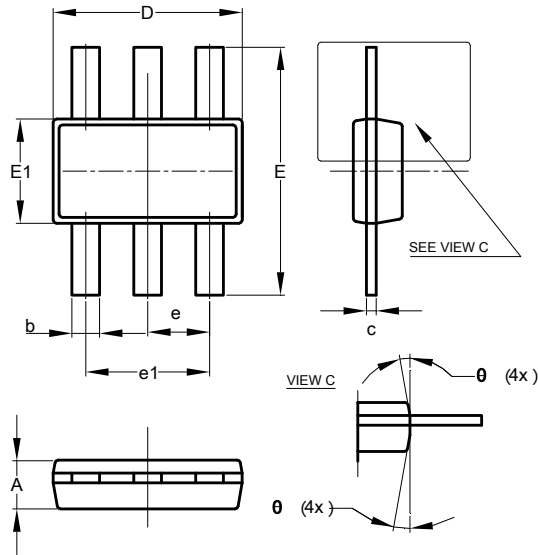
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.





## Package Outline Dimensions

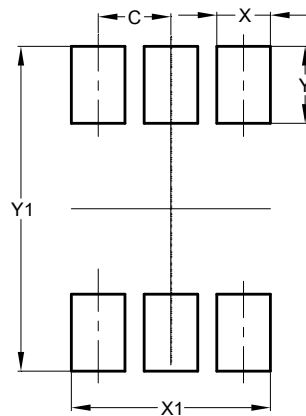
TSOT26F



TSOT26F			
Dim	Min	Max	Typ
A	0.700	0.775	0.750
b	0.350	0.500	-
c	0.100	0.200	-
D	2.800	3.100	2.900
E	3.700	3.900	3.800
E1	1.500	1.700	1.600
e	-	-	0.950
e1	-	-	1.900
θ	4°	12°	10°
All Dimensions in mm			

## Suggested Pad Layout

TSOT26F

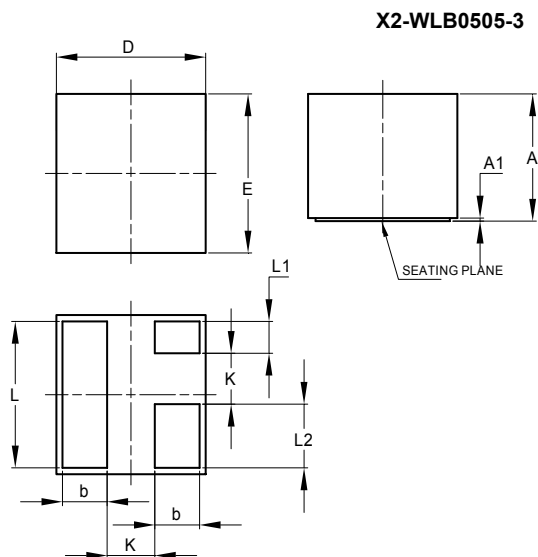


Dimensions	Value (in mm)
C	0.950
X	0.700
X1	2.600
Y	1.000
Y1	4.220

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

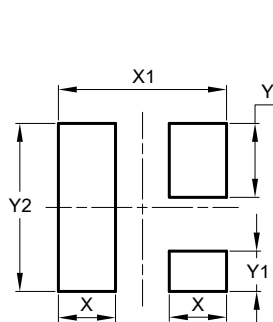
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-WLB0505-3			
Dim	Min	Max	Typ
A	0.35	0.40	–
A1	0.00	0.01	–
b	0.12	0.18	0.15
D	–	–	0.50
E	–	–	0.50
K	–	–	0.16
L	0.43	0.49	0.46
L1	0.07	0.13	0.10
L2	0.17	0.23	0.20
All Dimensions in mm			

## Suggested Pad Layout

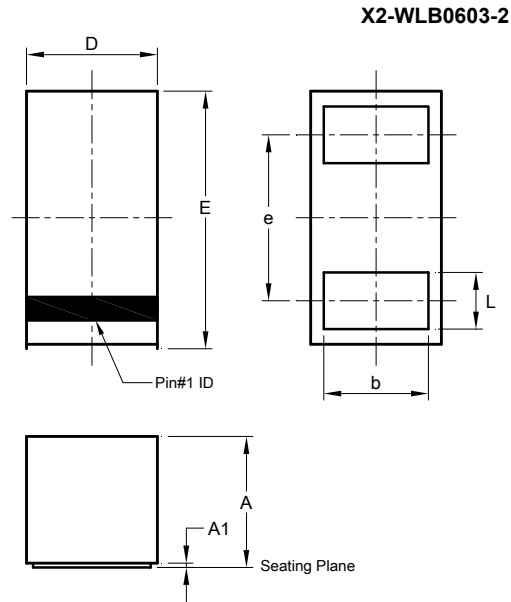


Dimensions	Value (in mm)
X	0.17
X1	0.50
Y	0.22
Y1	0.12
Y2	0.50

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

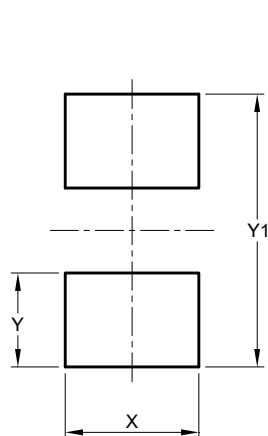
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-WLB0603-2			
Dim	Min	Max	Typ
A	0.26	0.34	0.30
A1	0	0.02	0.01
b	0.20	0.28	0.24
D	0.28	0.32	0.30
E	0.58	0.62	0.60
e	0.42	0.34	0.38
L	0.11	0.15	0.13
All Dimensions in mm			

## Suggested Pad Layout



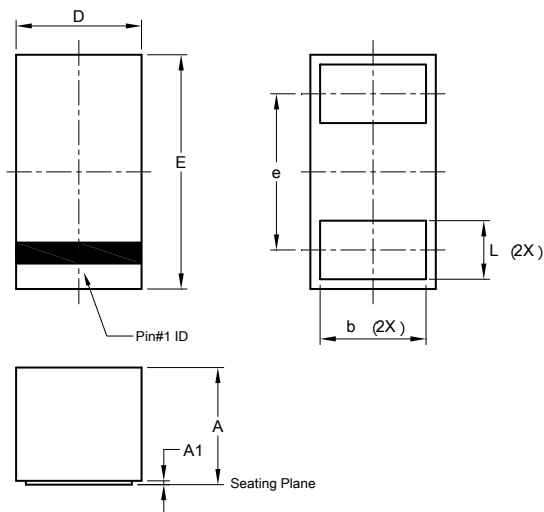
Dimensions	Value (in mm)
X	0.300
Y	0.210
Y1	0.610

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

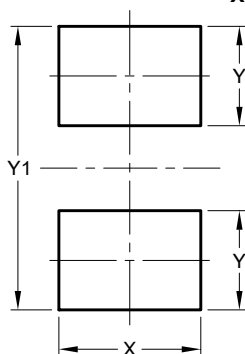
X3-WLB0603-2



X3-WLB0603-2			
Dim	Min	Max	Typ
A	0.26	0.34	0.30
A1	0.00	0.01	—
b	0.22	0.28	0.25
D	—	—	0.30
E	—	—	0.60
e	—	—	0.40
L	0.12	0.18	0.15
All Dimensions in mm			

## Suggested Pad Layout

X3-WLB0603-2

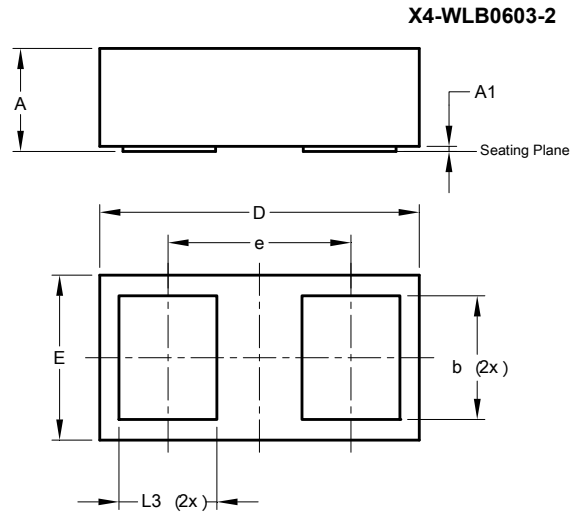


Dimensions	Value (in mm)
X	0.30
Y	0.21
Y1	0.60

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

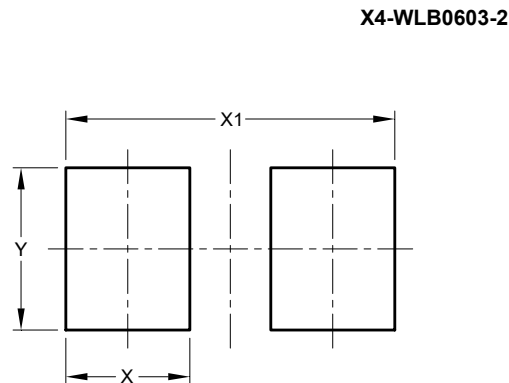
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X4-WLB0603-2			
Dim	Min	Max	Typ
A	--	--	0.20
A1	0.006	0.01	0.008
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.320
e	-	-	0.355
L3	0.14	0.24	0.19
All Dimensions in mm			

## Suggested Pad Layout

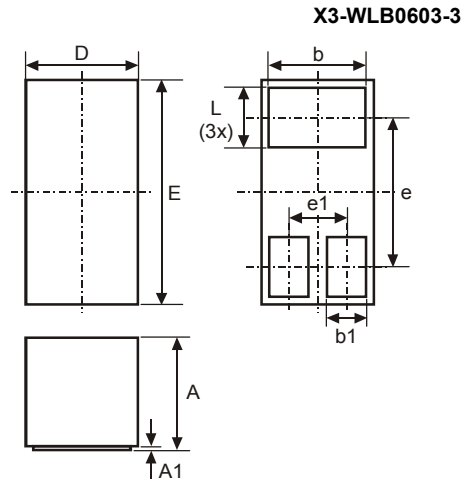


Dimensions	Value (in mm)
X	0.230
X1	0.610
Y	0.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

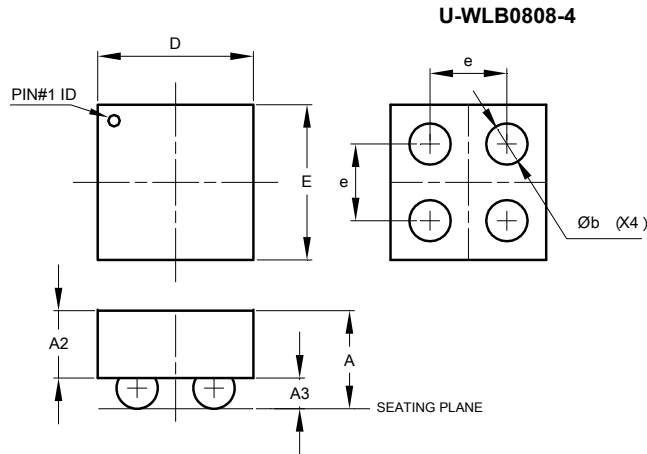


X3-WLB0603-3			
Dim	Min	Max	Typ
A	0.24	0.30	–
A1	0.00	0.01	–
b	0.23	0.29	0.26
b1	0.075	0.135	0.105
D	–	–	0.30
E	–	–	0.60
e	–	–	0.40
e1	–	–	0.155
L	0.13	0.19	0.16
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

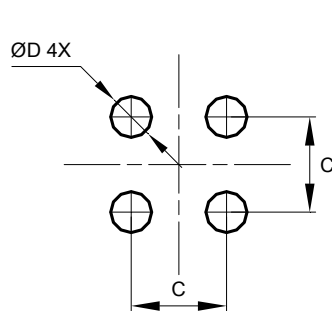
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-WLB0808-4			
Dim	Min	Max	Typ
<b>A</b>	0.511 REF		
<b>A2</b>	0.336	0.366	0.351
<b>A3</b>	0.15	0.17	0.16
<b>b</b>	0.205	0.225	0.215
<b>D</b>	0.795	0.825	0.81
<b>E</b>	0.795	0.825	0.81
<b>e</b>	—	—	0.40
All Dimensions in mm			

## Suggested Pad Layout



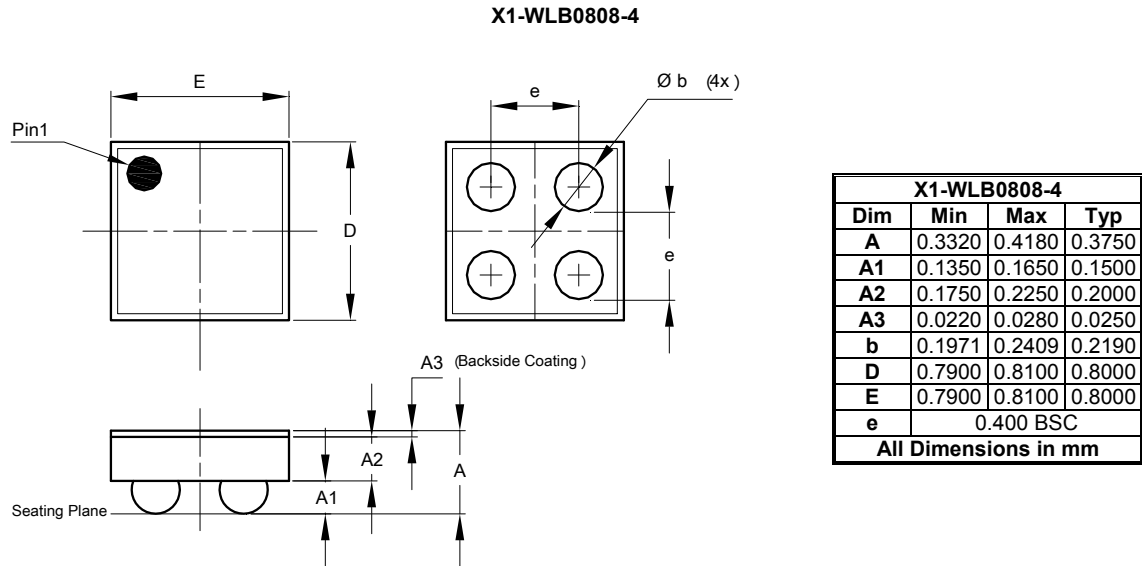
Dimensions	Value (in mm)
<b>C</b>	0.40
<b>D</b>	0.172

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

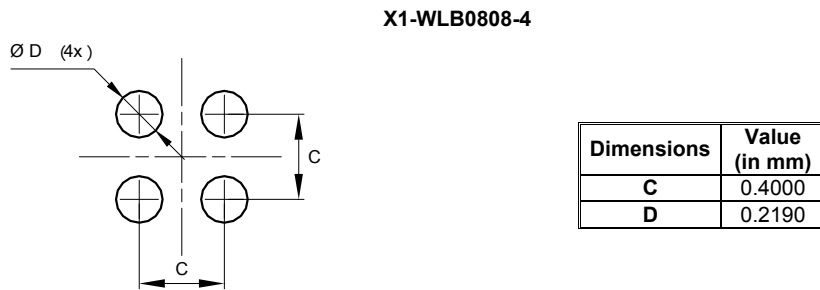
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions



## Suggested Pad Layout

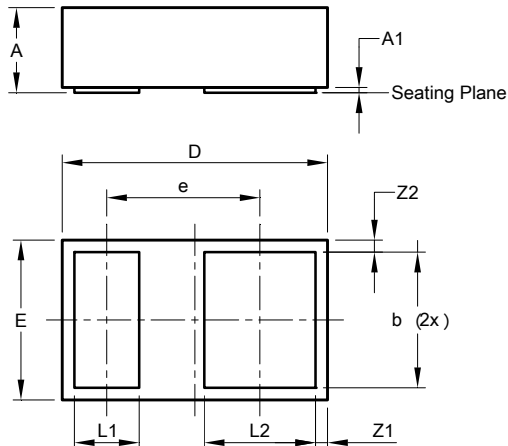


### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

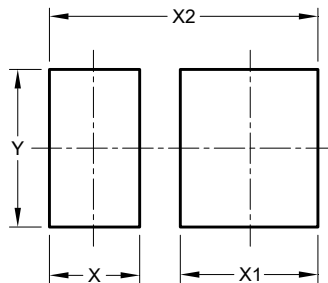
X2-WLB1006-2



X2-WLB1006-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	00	0.03	0.02
b	0.459	0.559	0.509
D	0.95	1.05	1.000
E	0.55	0.65	0.600
e	-	-	0.578
L1	0.194	0.294	0.244
L2	0.369	0.469	0.419
Z1	0.016	0.076	0.046
Z2	0.016	0.076	0.046
All Dimensions in mm			

## Suggested Pad Layout

X2-WLB1006-2



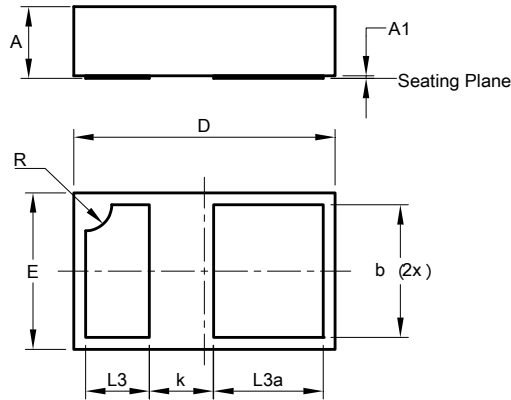
Dimensions	Value (in mm)
X	0.332
X1	0.507
X2	0.989
Y	0.579

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

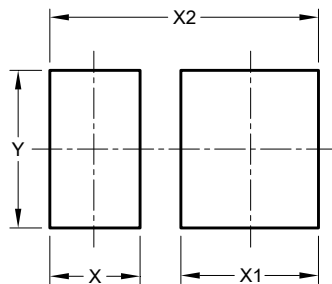
X3-WLB1006-2



X3-WLB1006-2			
Dim	Min	Max	Typ
A	0.25	0.30	0.275
A1	0.00	0.01	-
b	0.450	0.550	0.500
D	0.95	1.05	1.000
E	0.55	0.65	0.600
k	-	-	0.288
L3	0.194	0.294	0.244
L3a	0.350	0.450	0.400
R	-	-	0.100
All Dimensions in mm			

## Suggested Pad Layout

X3-WLB1006-2

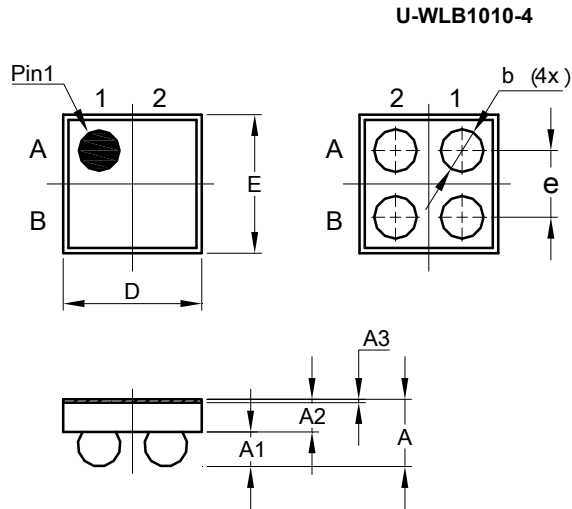


Dimensions	Value (in mm)
X	0.332
X1	0.507
X2	0.989
Y	0.579

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

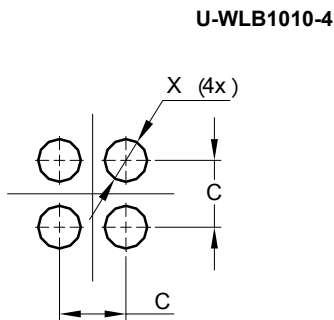
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



U-WLB1010-4			
Dim	Min	Max	Typ
A	0.4535	0.5565	0.5050
A1	0.2115	0.2585	0.2350
A2	0.2200	0.2700	0.2450
A3	0.0220	0.0280	0.0250
b	0.2880	0.3520	0.3200
D	1.0300	1.0500	1.0400
e	0.500 BSC		
E	1.0300	1.0500	1.0400
All Dimensions in mm			

## Suggested Pad Layout



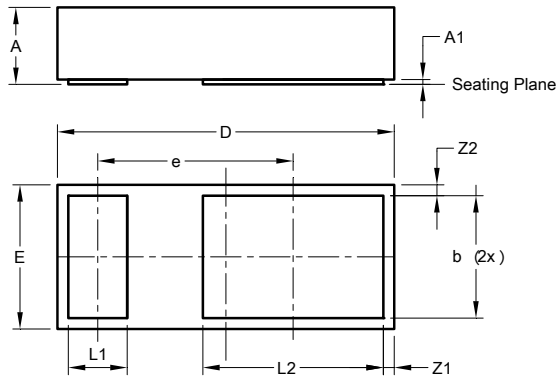
Dimensions	Value (in mm)
C	0.500
X	0.3200

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

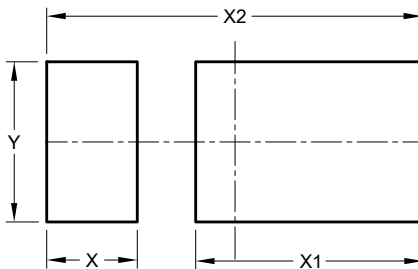
**X2-WLB1406-2**



X2-WLB1406-2			
Dim	Min	Max	Typ
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.459	0.559	0.509
D	1.35	1.45	1.40
E	0.55	0.65	0.60
e	-	-	0.812
L1	0.194	0.294	0.244
L2	0.700	0.800	0.750
Z1	0.016	0.076	0.046
Z2	0.016	0.076	0.046
All Dimensions in mm			

## Suggested Pad Layout

**X2-WLB1406-2**



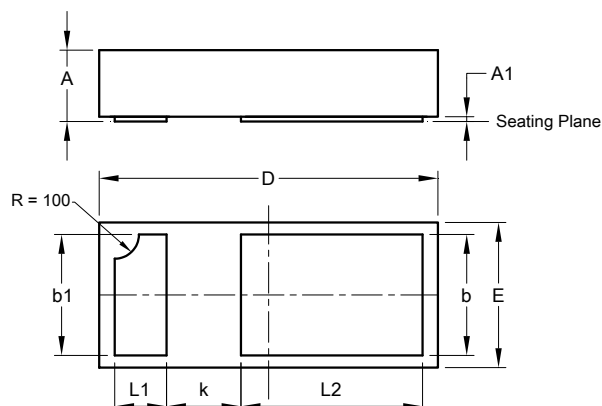
Dimensions	Value (in mm)
X	0.334
X1	0.840
X2	1.386
Y	0.589

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

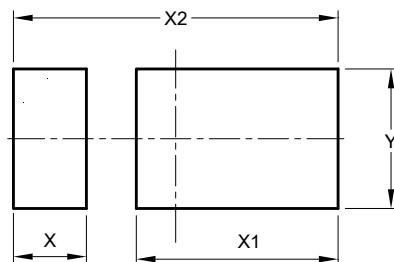
X3-WLB1406-2



X3-WLB1406-2			
Dim	Min	Max	Typ
A	0.250	0.300	0.275
A1	0.000	0.015	-
b	0.45	0.55	-
b1	0.45	0.55	-
D	1.37	1.43	1.40
E	0.57	0.63	0.60
k	-	-	0.30
L1	0.20	0.26	-
L2	0.70	0.80	-
All Dimensions in mm			

## Suggested Pad Layout

X3-WLB1406-2

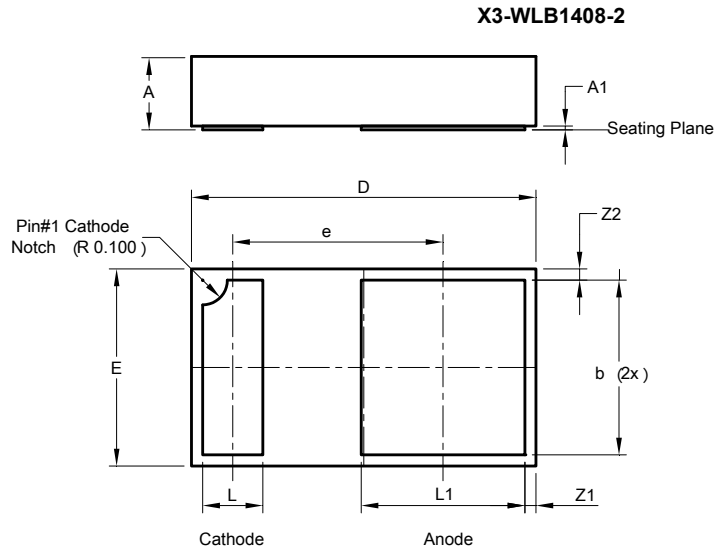


Dimensions	Value (in mm)
X	0.304
X1	0.840
X2	1.352
Y	0.580

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

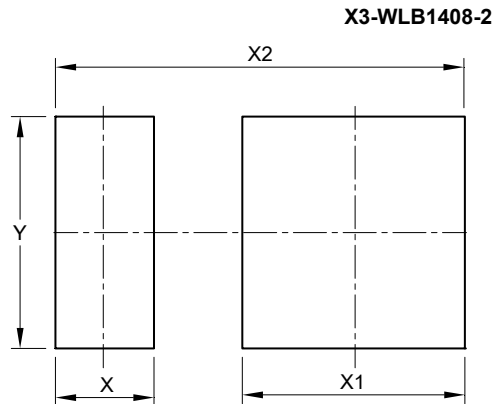
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X3-WLB1408-2			
Dim	Min	Max	Typ
A	0.25	0.30	0.275
A1	-	0.01	-
b	0.659	0.759	0.709
D	1.35	1.45	1.40
E	0.75	0.85	0.80
e	-	-	0.855
L	0.194	0.294	0.244
L1	0.615	0.715	0.665
Z1	0.16	0.076	0.046
Z2	0.16	0.076	0.046
All Dimensions in mm			

## Suggested Pad Layout



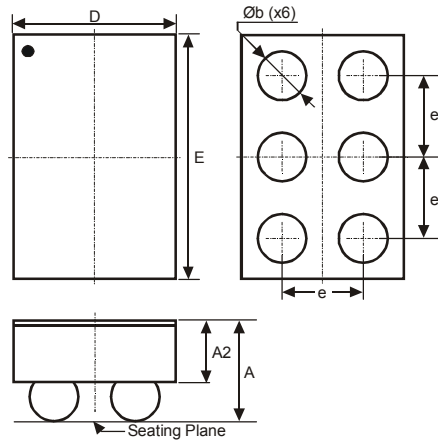
Dimensions	Value (in mm)
X	0.334
X1	0.755
X2	1.386
Y	0.789

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

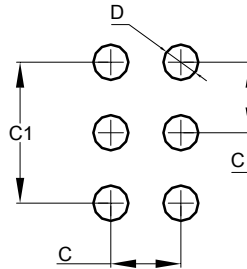
U-WLB1510-6



U-WLB1510-6			
Dim	Min	Max	Typ
D	0.90	1.00	1.00
E	1.40	1.50	1.50
A	—	0.62	—
A2	—	—	0.38
b	0.27	0.37	0.32
e	—	—	0.50
All Dimensions in mm			

## Suggested Pad Layout

U-WLB1510-6



Dimensions	Value (in mm)
C	0.50
C1	1.00
D	0.25

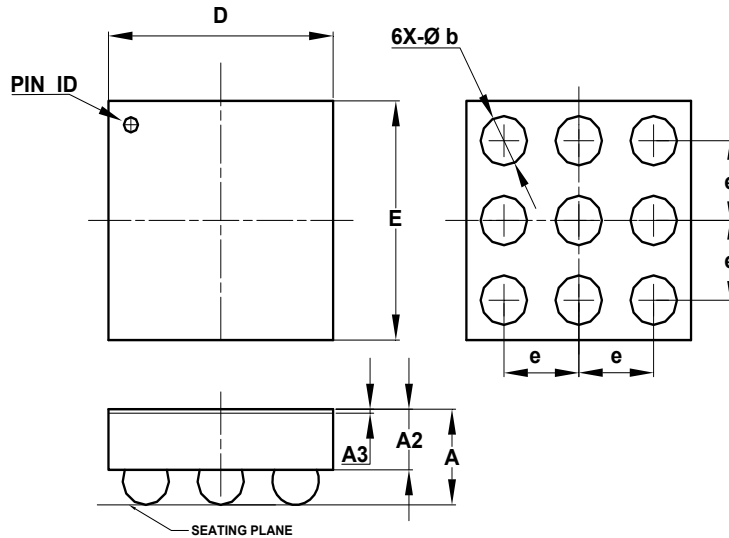
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

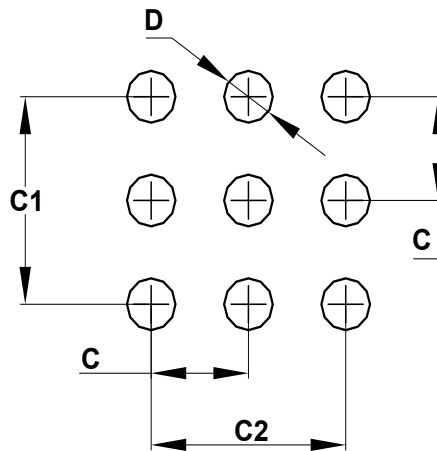
U-WLB1515-9



U-WLB1515-9			
Dim	Min	Max	Typ
A	-	0.62	-
A2	-	0.36	0.36
A3	0.020	0.030	0.025
b	0.27	0.37	0.32
D	1.47	1.51	1.49
E	1.47	1.51	1.49
e	-	-	0.50
All Dimensions in mm			

## Suggested Pad Layout

U-WLB1515-9



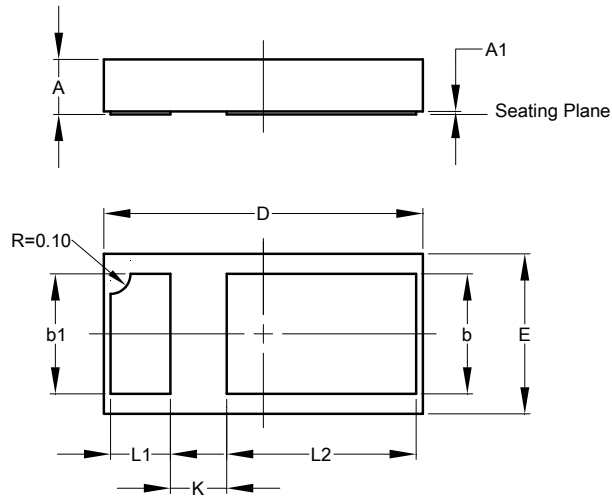
Dimensions	Value (in mm)
C	0.50
C1	1.00
C2	1.00
D	0.25

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

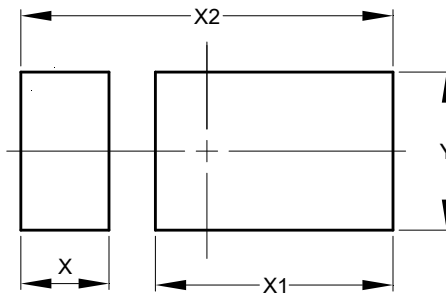
X3-WLB1608-2



X3-WLB1608-2			
Dim	Min	Max	Typ
A	0.250	0.300	0.275
A1	-	0.015	-
b	-	-	0.600
b1	-	-	0.600
D	1.57	1.63	1.60
E	0.77	0.83	0.80
K	-	-	0.282
L1	0.25	0.35	0.30
L2	0.90	1.00	0.95
All Dimensions in mm			

## Suggested Pad Layout

X3-WLB1608-2

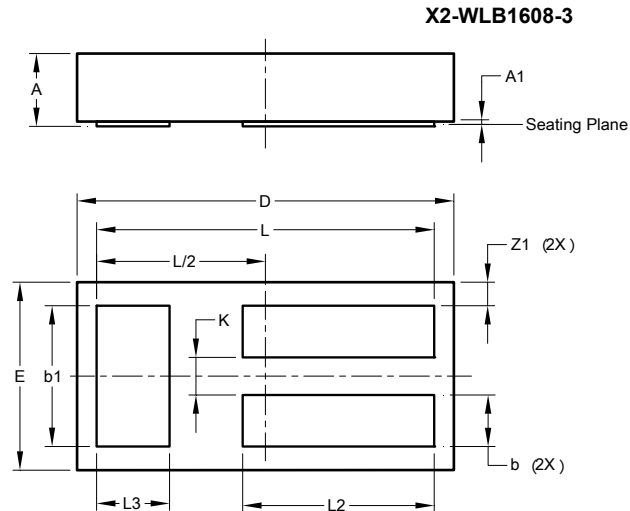


Dimensions	Value (in mm)
X	0.385
X1	1.035
X2	1.622
Y	0.690

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

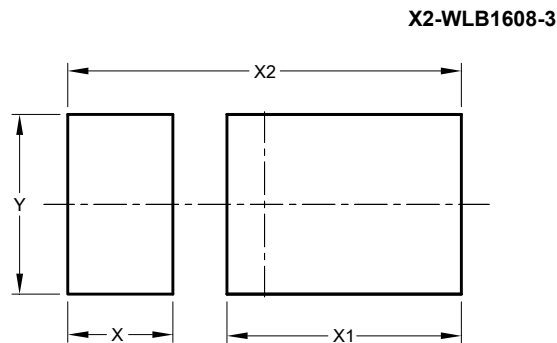
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-WLB1608-3			
Dim	Min	Max	Typ
A	—	0.310	—
A1	0.015	0.025	0.020
b	0.190	0.250	0.220
b1	0.570	0.630	0.600
D	1.570	1.630	1.600
E	0.770	0.830	0.800
L	1.384	1.484	1.434
L2	0.784	0.844	0.814
L3	0.280	0.340	0.310
K	0.10	0.22	0.16
Z1	0.07	0.13	0.10
All Dimensions in mm			

## Suggested Pad Layout



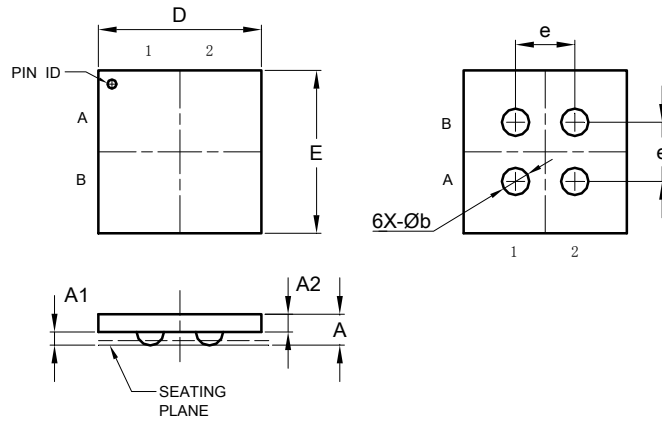
Dimensions	Value (in mm)
X	0.410
X1	0.914
X2	1.534
Y3	0.700

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

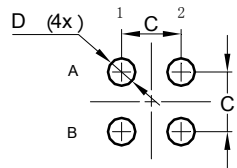
U-WLB1818-4



U-WLB1818-4			
Dim	Min	Max	Typ
A	—	0.62	—
A2	—	—	0.36
b	—	—	0.30
D	1.75	1.80	1.79
E	1.75	1.80	1.79
e	—	—	0.65
All Dimensions in mm			

## Suggested Pad Layout

U-WLB1818-4

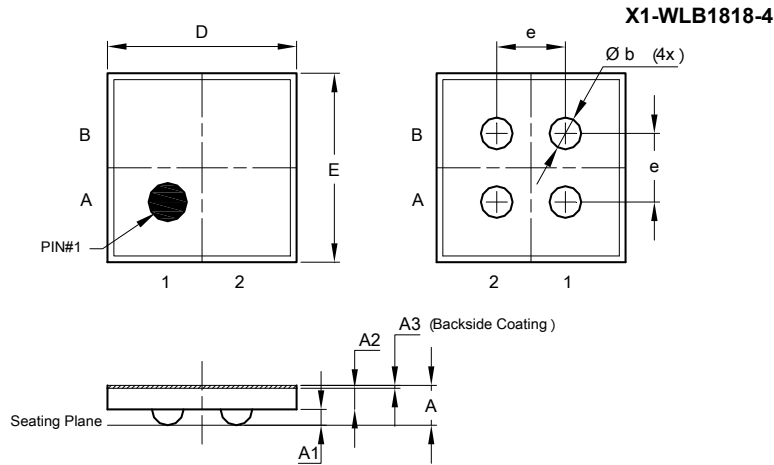


Dimensions	Value (in mm)
C	0.65
D	0.30

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

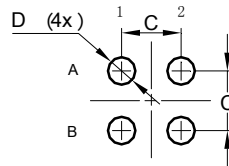
## Package Outline Dimensions



X1-WLB1818-4			
Dim	Min	Max	Typ
A	0.3420	0.4080	0.3750
A1	0.1350	0.1650	0.1500
A2	0.1850	0.2150	0.2000
A3	0.0220	0.0280	0.0250
b	0.2700	0.3300	0.3000
D	1.7800	1.8000	1.7900
E	1.7800	1.8000	1.7900
e	0.650 BSC		
All Dimensions in mm			

## Suggested Pad Layout

**X1-WLB1818-4**



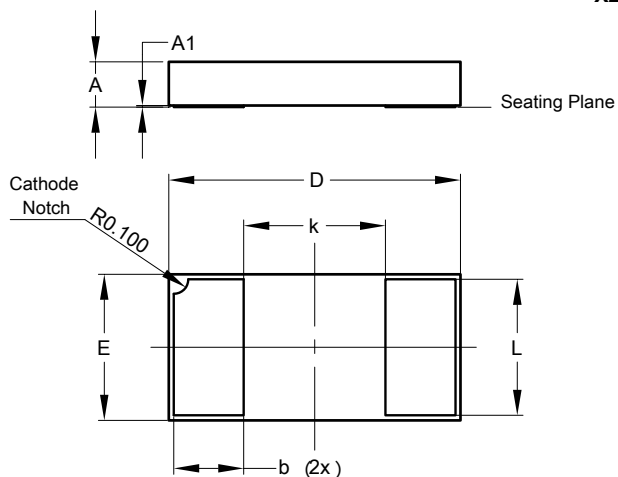
Dimensions	Value (in mm)
C	0.65
D	0.30

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

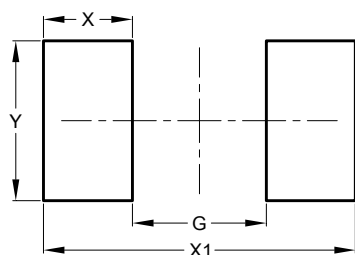
X2-WLB2010-2



X2-WLB2010-2			
Dim	Min	Max	Typ
A	–	0.305	0.290
A1	–	0.02	0.011
b	–	–	0.48
D	1.950	2.050	2.000
E	0.950	1.050	1.000
k	–	–	0.972
L	–	–	0.932
All Dimensions in mm			

## Suggested Pad Layout

X2-WLB2010-2

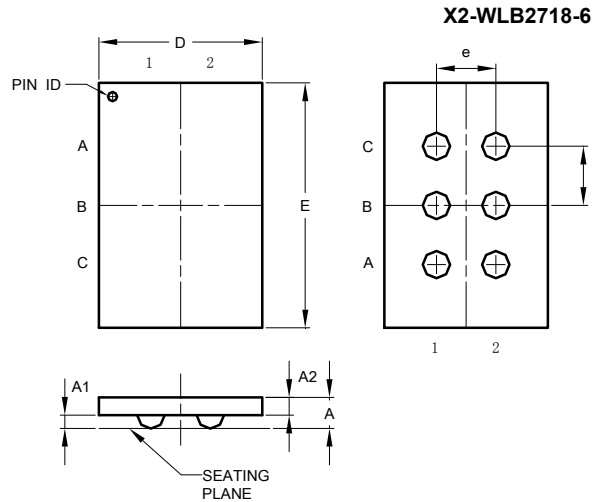


Dimensions	Value (in mm)
G	0.872
X	0.580
X1	2.032
Y	1.032

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

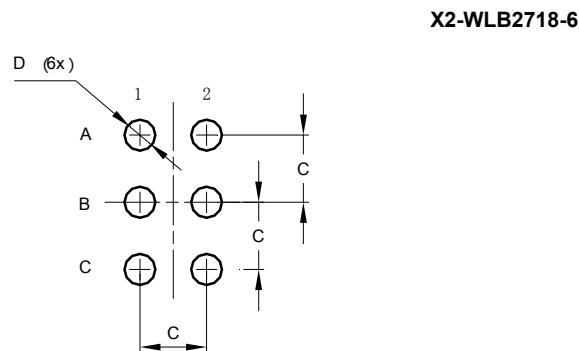
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X2-WLB2718-6			
Dim	Min	Max	Typ
A	—	0.40	0.35
A1	—	—	0.15
A2	—	—	0.20
b	0.25	0.35	0.30
D	1.75	1.80	1.79
E	2.65	2.70	2.69
e	—	—	0.65
All Dimensions in mm			

## Suggested Pad Layout



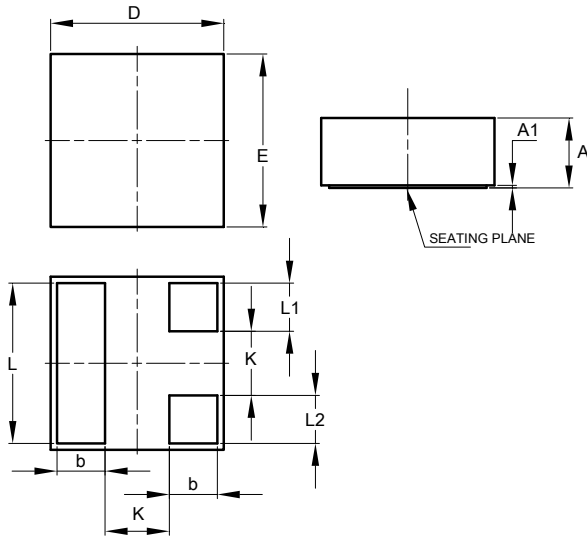
Dimensions	Value (in mm)
C	0.65
D	0.30

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

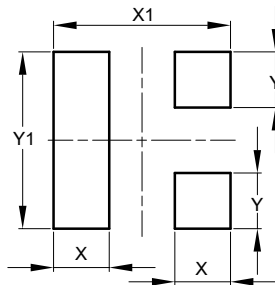
X4-WLCUP0505-3



X4-WLCUP0505-3			
Dim	Min	Max	Typ
A	–	0.22	0.20
A1	0.006	0.001	0.008
b	0.12	0.18	0.15
D	–	–	0.54
E	–	–	0.54
K	–	–	0.20
L	0.47	0.53	0.50
L1	0.12	0.18	0.15
L2	0.12	0.18	0.15
All Dimensions in mm			

## Suggested Pad Layout

X4-WLCUP0505-3



Dimensions	Value (in mm)
X	0.17
X1	0.54
Y	0.17
Y1	0.54

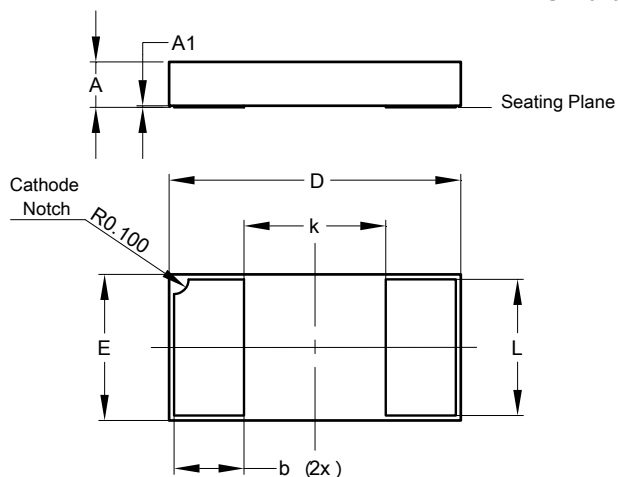
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

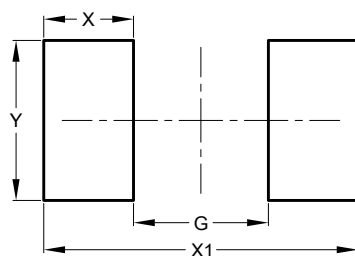
**X2-WLCUP2010-2**



X2-WLCUP2010-2			
Dim	Min	Max	Typ
A	—	0.305	0.290
A1	—	0.02	0.011
b	—	—	0.48
D	1.950	2.050	2.000
E	0.950	1.050	1.000
k	—	—	0.972
L	—	—	0.932
All Dimensions in mm			

## Suggested Pad Layout

**X2-WLCUP2010-2**



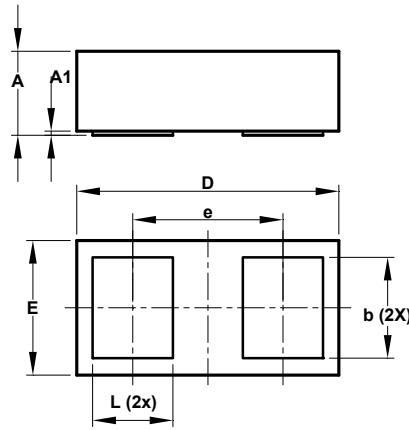
Dimensions	Value (in mm)
G	0.872
X	0.580
X1	2.032
Y	1.032

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

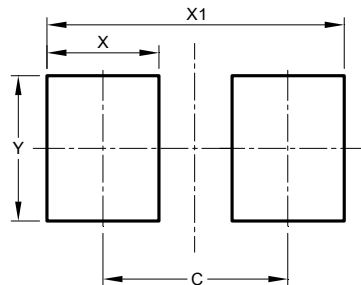
X4-WLCUS0603-2



X4-WLCUS0603-2			
Dim	Min	Max	Typ
A	-	-	0.20
A1	0.006	0.01	0.008
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L	0.14	0.24	0.19
All Dimensions in mm			

## Suggested Pad Layout

X4-WLCUS0603-2

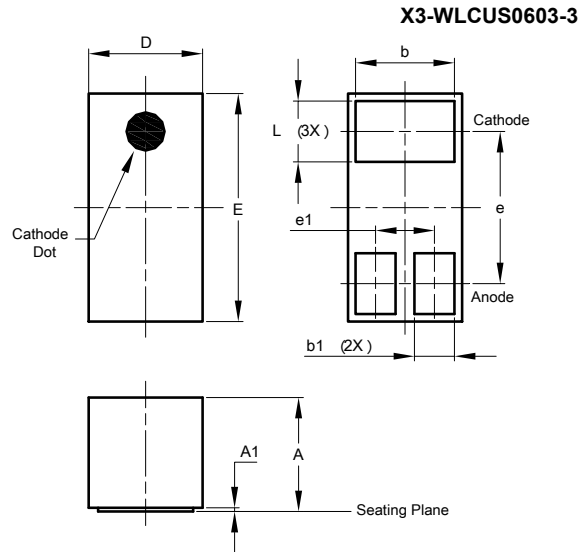


Dimensions	Value (in mm)
C	0.380
X	0.230
X1	0.610
Y	0.300

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

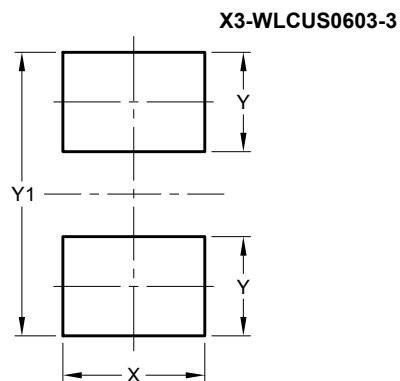
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X3-WLCUS0603-3			
Dim	Min	Max	Typ
A	0.24	0.30	–
A1	0.00	0.01	–
b	0.23	0.29	0.26
b1	0.075	0.135	0.105
D	0.290	0.300	0.295
E	0.590	0.600	0.595
e	–	–	0.40
e1	–	–	0.155
L	0.13	0.19	0.16
All Dimensions in mm			

## Suggested Pad Layout

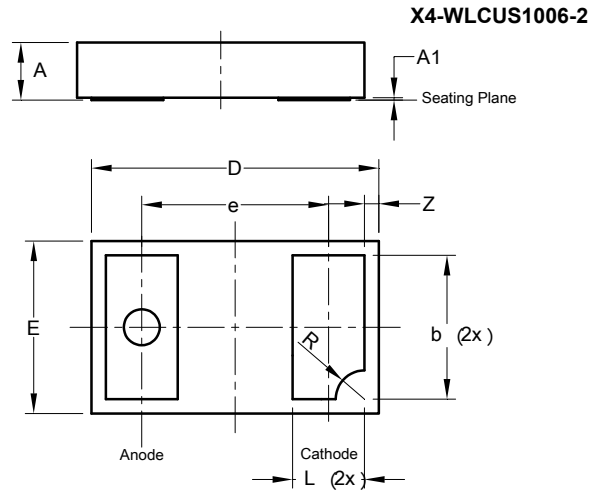


Dimensions	Value (in mm)
X	0.30
Y	0.21
Y1	0.60

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

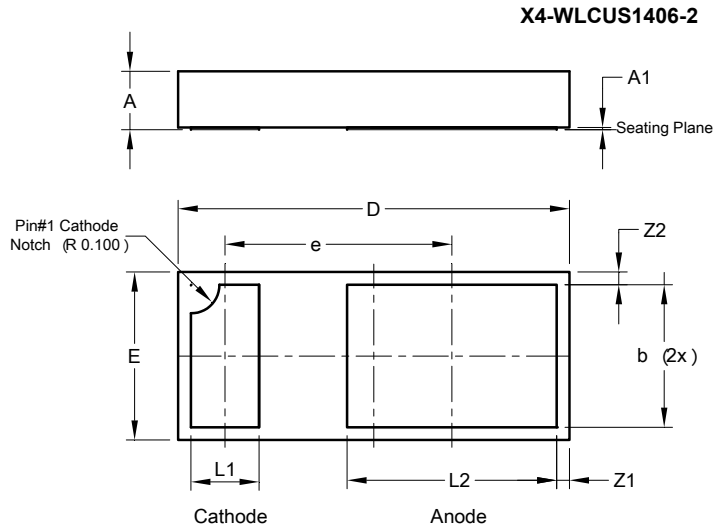


X4-WLCUS1006-2			
Dim	Min	Max	Typ
A	0.18	0.22	0.20
A1	0.006	0.01	0.008
b	0.48	0.58	0.53
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.40
L	0.23	0.33	0.28
R	0.05	0.15	0.10
Z	0.02	0.08	0.05
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

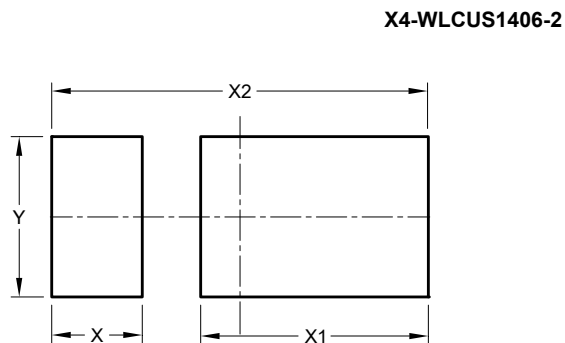
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X4-WLCUS1406-2			
Dim	Min	Max	Typ
<b>A</b>	0.17	0.25	0.20
<b>A1</b>	0.006	0.01	0.008
<b>b</b>	0.459	0.559	0.509
<b>D</b>	1.35	1.45	1.40
<b>E</b>	0.550	0.650	0.600
<b>e</b>	-	-	0.812
<b>L1</b>	0.194	0.294	0.244
<b>L2</b>	0.700	0.800	0.750
<b>Z1</b>	0.016	0.076	0.046
<b>Z2</b>	0.016	0.076	0.046
All Dimensions in mm			

## Suggested Pad Layout

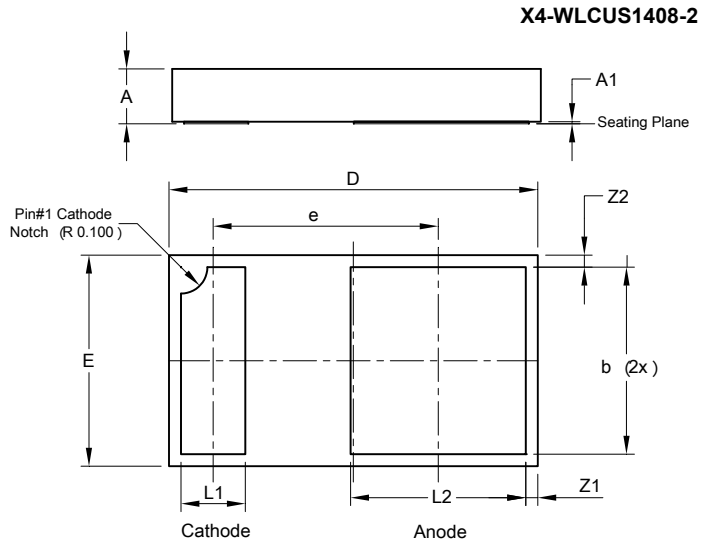


Dimensions	Value (in mm)
<b>X</b>	0.334
<b>X1</b>	0.840
<b>X2</b>	1.386
<b>Y</b>	0.589

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

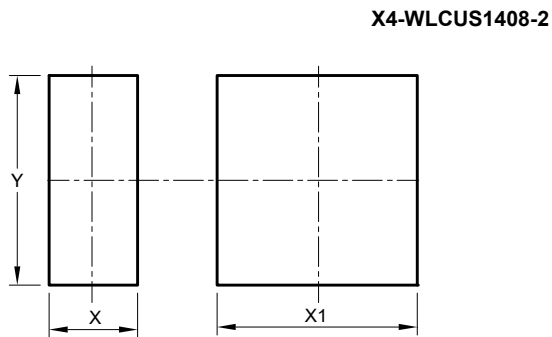
Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



X4-WLCUS1408-2			
Dim	Min	Max	Typ
A	0.17	0.25	0.20
A1	0.006	0.01	0.008
b	0.659	0.759	0.709
D	1.35	1.45	1.40
E	0.75	0.85	0.80
e	-	-	0.855
L1	0.194	0.294	0.244
L2	0.615	0.715	0.665
Z1	0.016	0.076	0.046
Z2	0.016	0.076	0.046
All Dimensions in mm			

## Suggested Pad Layout



Dimensions	Value (in mm)
X	0.334
X1	0.755
X2	1.386
Y	0.789

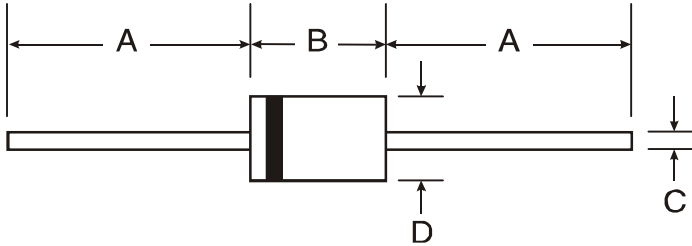
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## AXIAL / THROUGH-HOLE PACKAGES

### Package Outline Dimensions

A-405

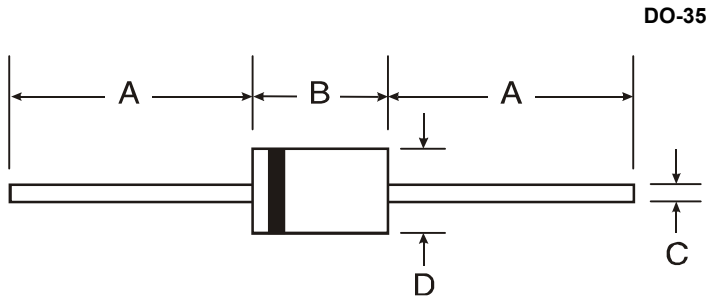


A-405		
Dim	Min	Max
A	25.40	—
B	4.10	5.20
C	0.53	0.64
D	2.00	2.70
All Dimensions in mm		

#### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



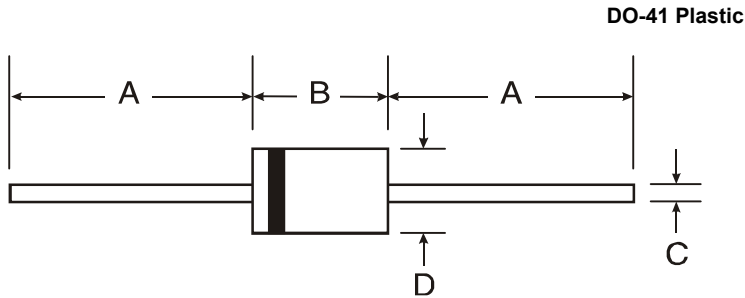
DO-35		
Dim	Min	Max
A	25.40	-
B	-	4.00
C	-	0.60
D	-	2.00
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

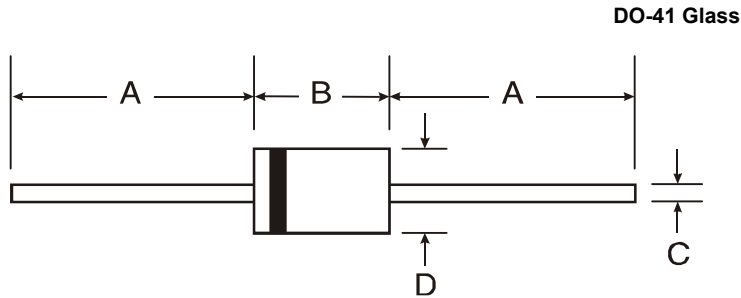


DO-41 Plastic		
Dim	Min	Max
A	25.40	-
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

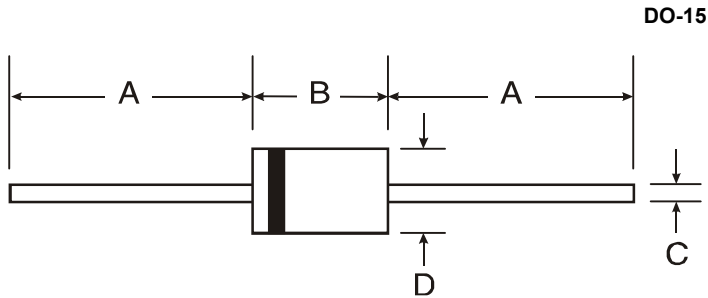


DO-41 Glass		
Dim	Min	Max
A	25.40	-
B	-	4.70
C	-	0.863
D	-	2.71
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

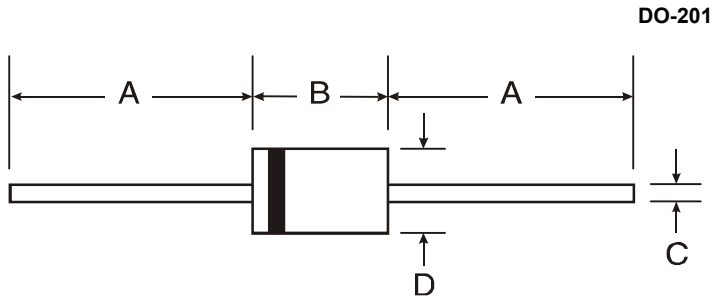


DO-15		
Dim	Min	Max
A	25.40	-
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

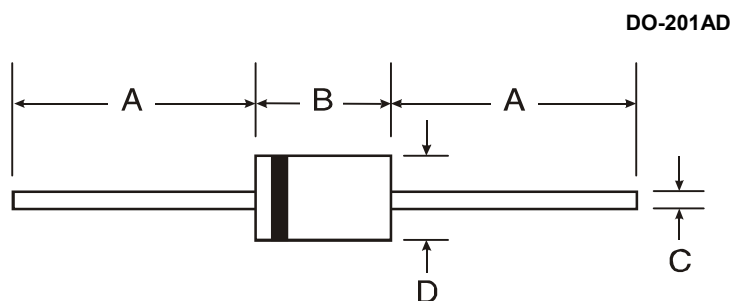


DO-201		
Dim	Min	Max
A	25.40	-
B	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

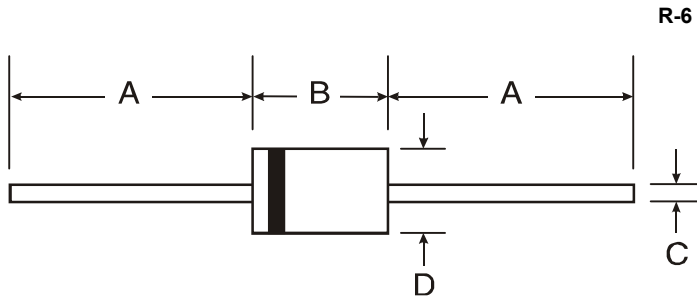


DO-201AD		
Dim	Min	Max
A	25.40	-
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

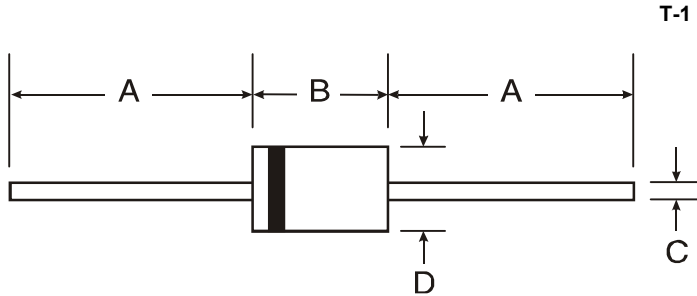


R-6		
Dim	Min	Max
A	25.40	-
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

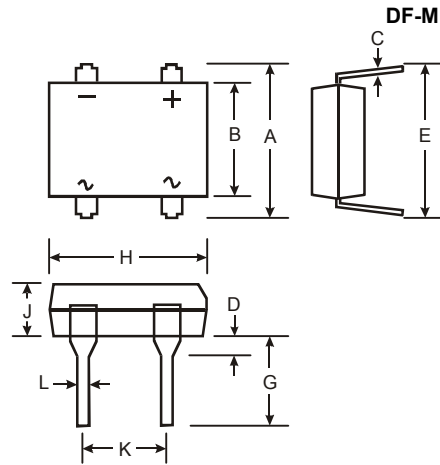


T-1		
Dim	Min	Max
A	25.40	-
B	2.60	3.20
C	0.53	0.64
D	2.20	2.60
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



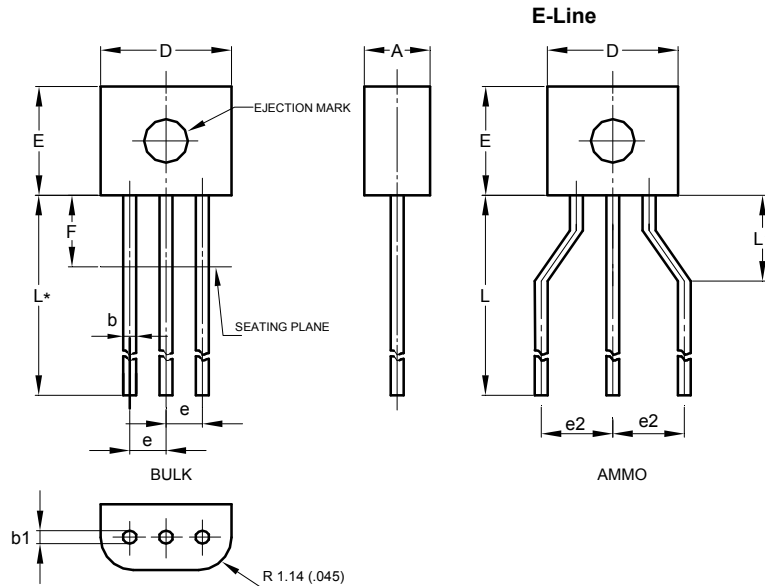
DF-M		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	1.27	2.03
E	7.60	8.90
G	3.81	4.69
H	8.13	8.51
J	2.40	3.40
K	5.00	5.20
L	0.46	0.58
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions



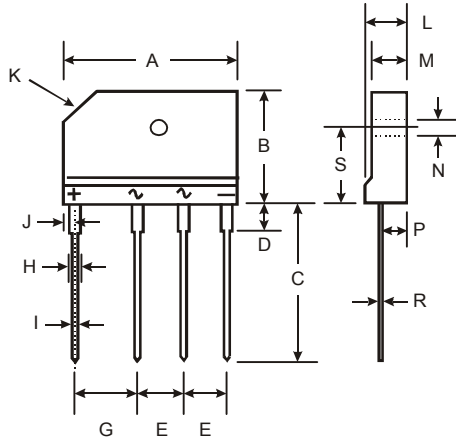
E-Line			
Dim	Min	Max	Typ
A	2.16	2.41	—
b	0.41	0.495	—
b1	0.41	0.495	—
D	4.37	4.77	—
E	3.61	4.01	—
e	—	—	1.27
e2	—	—	2.54
F	—	2.50	—
L	13.00	13.97	—
L1	2.50	3.50	—
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

### GBJ



GBJ		
Dim	Min	Max
A	29.70	30.30
B	19.70	20.30
C	17.00	18.00
D	3.80	4.20
E	7.30	7.70
G	9.80	10.20
H	2.00	2.40
I	0.90	1.10
J	2.30	2.70
K	3.0 X 45°	
L	4.40	4.80
M	3.40	3.80
N	3.10	3.40
P	2.50	2.90
R	0.60	0.80
S	10.80	11.20
All Dimensions in mm		

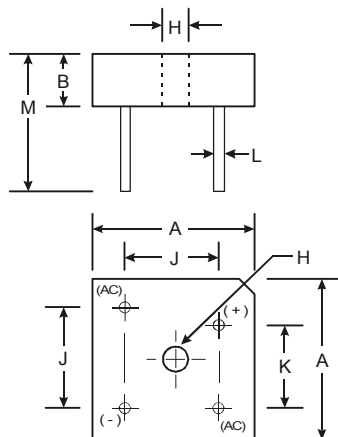
#### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

GBPC-W

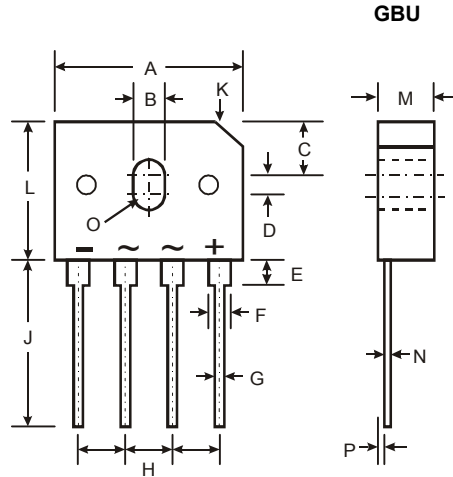


GBPC-W		
Dim	Min	Max
A	28.30	28.80
B	7.40	8.00
H	Hole for #10 screw	
	5.08 $\varnothing$	5.59 $\varnothing$
J	17.60	18.60
K	10.90	11.90
L	0.97 $\varnothing$	1.07 $\varnothing$
M	31.80	-
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

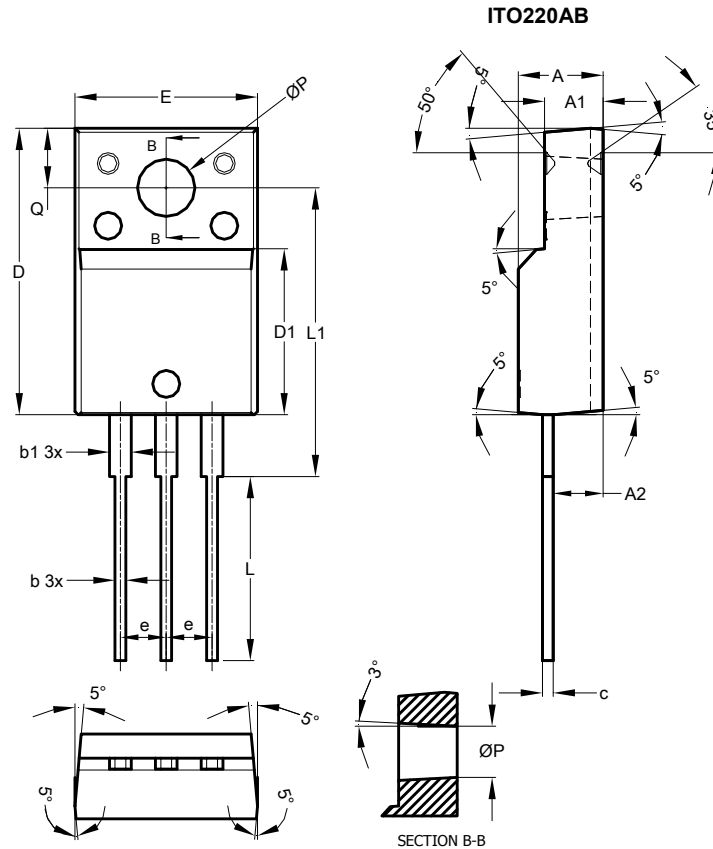


GBU		
Dim	Min	Max
A	21.8	22.3
B	3.5	4.1
C	7.4	7.9
D	1.65	2.16
E	2.25	2.75
F	1.95	2.35
G	1.02	1.27
H	4.83	5.33
J	17.5	18.0
K	3.2 X 45°	
L	18.3	18.8
M	3.30	3.56
N	0.46	0.56
O	1.90R	
P	0.76	1.0
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

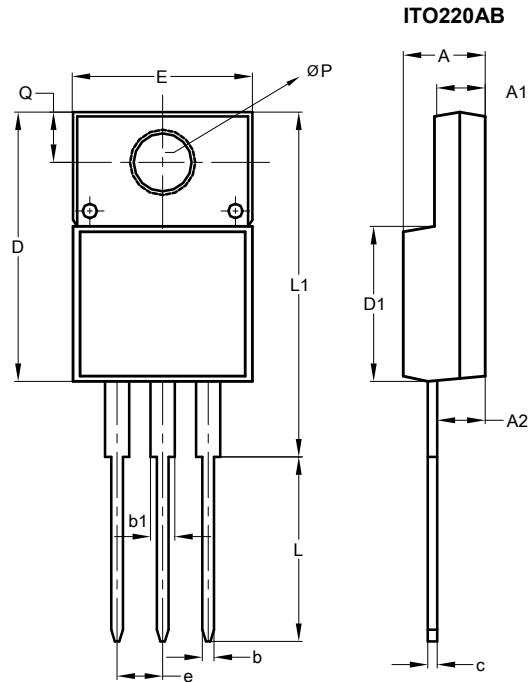


ITO220AB			
Dim	Min	Typ	Max
A	4.50	4.70	4.90
A1	3.04	3.24	3.44
A2	2.56	2.76	2.96
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
c	0.50	0.60	0.70
D	15.67	15.87	16.07
D1	8.99	9.19	9.39
e		2.54	
E	9.91	10.11	10.31
L	9.45	9.75	10.05
L1	15.80	16.00	16.20
P	2.98	3.18	3.38
Q	3.10	3.30	3.50
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



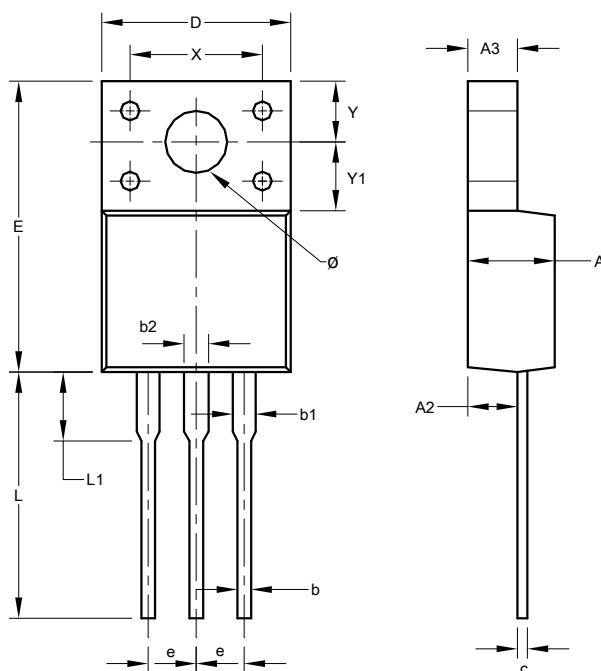
ITO220AB		
Dim	Min	Max
A	4.36	4.77
A1	2.54	3.10
A2	2.54	2.80
b	0.55	0.75
b1	1.20	1.50
c	0.38	0.68
D	14.50	15.50
D1	8.38	8.89
e	2.41	2.67
E	9.72	10.27
L	9.87	10.67
L1	15.8	17.00
P	3.08	3.39
Q	2.60	3.00
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

ITO220AB (TO220F-3)



ITO220AB (TO220F-3)			
Dim	Min	Max	Typ
A	4.300	4.900	-
A2	2.520	2.920	-
A3	2.350	2.900	-
b	0.550	0.900	-
b1	1.000	1.400	-
b2	1.100	1.500	-
c	0.450	0.600	-
D	9.70	10.30	-
E	14.70	16.00	-
e	-	-	2.54
L	12.50	13.50	-
L1	2.790	4.500	-
X	6.90	7.10	-
Y	3.000	3.400	-
Y1	3.370	3.900	-
Ø	3.000	3.550	-
All Dimensions in mm			

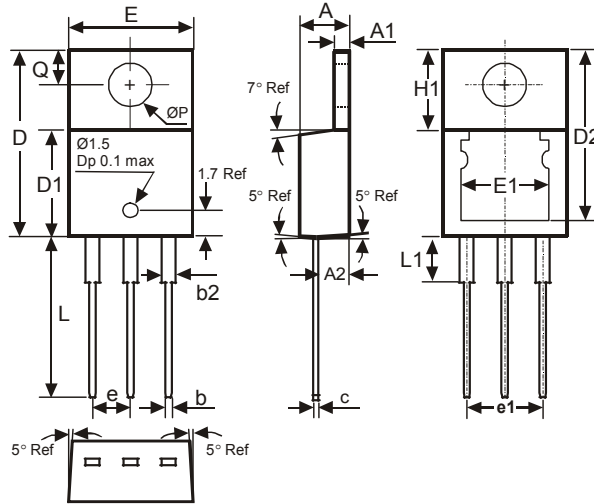
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

ITO220S



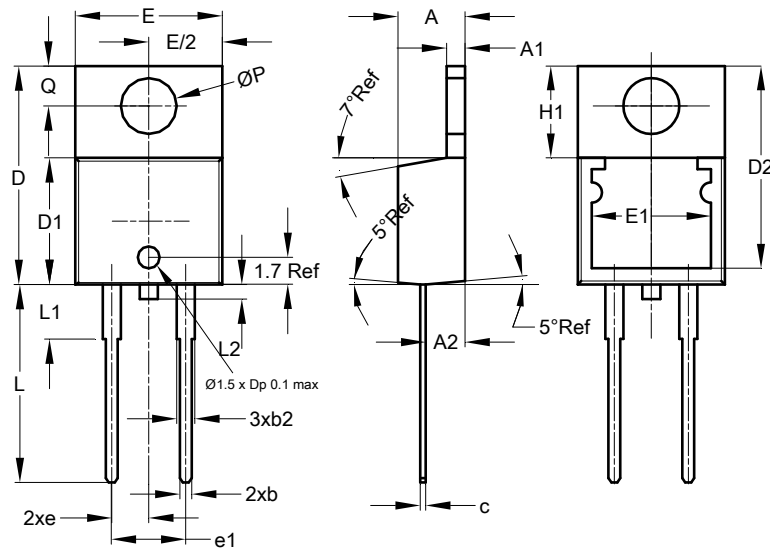
ITO220S			
Dim	Min	Max	Typ
A	4.52	4.62	4.57
A1	1.17	1.39	-
A2	2.57	2.77	2.67
b	0.72	0.95	0.84
b2	1.15	1.34	1.26
c	0.356	0.61	-
D	14.22	16.51	15.00
D1	8.60	8.80	8.70
D2	13.68	14.08	-
e	2.49	2.59	2.54
e1	4.98	5.18	5.08
E	10.01	10.21	10.11
E1	6.86	8.89	-
H1	5.85	6.85	-
L	13.30	13.90	13.60
L1	-	4.00	-
P	3.54	4.08	-
Q	2.54	3.42	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

ITO220AC-S



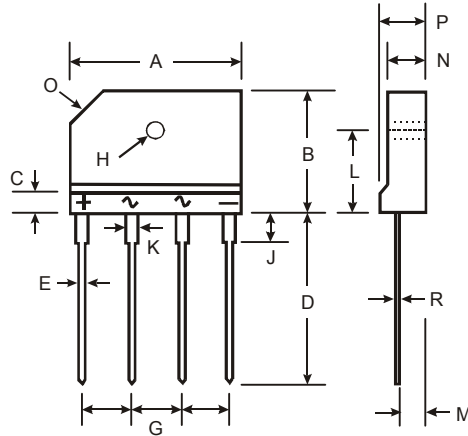
ITO220AC-S			
Dim	Min	Max	Typ
A	4.52	4.62	4.57
A1	0.51	1.39	--
A2	2.57	2.77	2.67
b	0.72	0.95	0.84
b2	1.15	1.34	1.26
c	0.356	0.61	--
D	14.22	16.51	15.00
D1	8.60	8.80	8.70
D2	13.68	14.08	--
e	2.49	2.59	2.54
e1	4.98	5.18	5.08
E	10.01	10.21	10.11
E1	6.86	8.89	--
H1	5.85	6.85	--
L	13.30	13.90	13.60
L1	--	4.00	--
L2	0.70	1.30	1.00
P	3.54	4.08	--
Q	2.54	3.42	--
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

KBJ



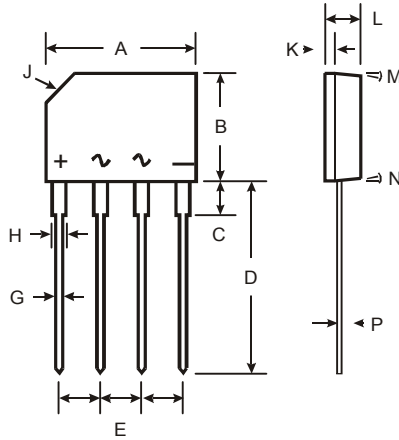
KBJ		
Dim	Min	Max
A	24.80	25.20
B	14.70	15.30
C	3.90	4.10
D	17.20	17.80
E	0.90	1.10
G	7.30	7.70
H	3.10 $\varnothing$	3.40 $\varnothing$
J	3.30	3.70
K	1.50	1.90
L	9.30	9.70
M	2.50	2.90
N	3.40	3.80
O	3.0 x 45°	
P	4.40	4.80
R	0.60	0.80
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

**KBP**



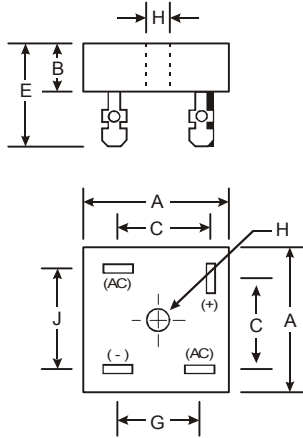
KBP		
Dim	Min	Max
A	14.25	14.75
B	10.20	10.60
C	1.80	2.20
D	14.25	14.73
E	3.56	4.06
G	0.76	0.86
H	1.17	1.42
J	2.8 X 45°	
K	0.80	1.10
L	3.35	3.65
M	3° Typ	
N	2° Typ	
P	0.30	0.64
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

MB



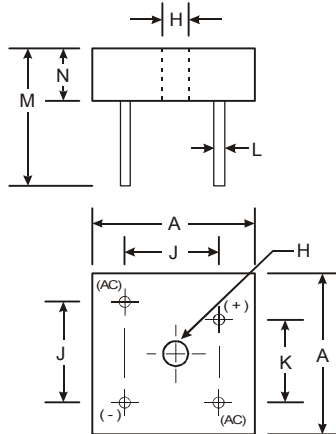
MB		
Dim	Min	Max
A	28.40	28.70
B	10.97	11.23
C	15.50	17.60
E	22.86	25.40
G	13.30	15.30
H	Hole for #10 screw	
	4.85Ø	5.59Ø
J	17.10	19.10
K	10.40	12.40
L	0.97Ø Typ	1.07Ø
M	30.50	-
N	10.97	11.23
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

**MB-W**



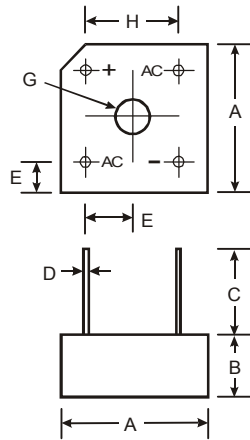
MB-W		
Dim	Min	Max
A	28.40	28.70
B	10.97	11.23
C	15.50	17.60
E	22.86	25.40
G	13.30	15.30
H	Hole for #10 screw	
	4.85Ø	5.59Ø
J	17.10	19.10
K	10.40	12.40
L	0.97Ø Typ	1.07Ø
M	30.50	-
N	10.97	11.23
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

### PBPC-3 / PBPC-6



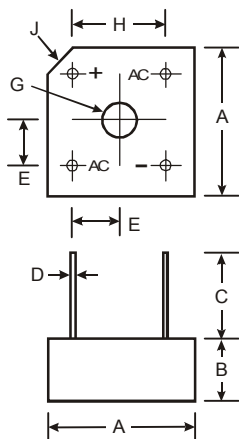
PBPC-3 / PBPC-6		
Dim	Min	Max
A	14.73	15.75
B	5.84	6.86
C	19.00	-
D	0.76Ø Typ	
E	1.70	3.20
G	Hole for #6 screw	
	3.60Ø	4.00Ø
H	10.30	11.30
All Dimensions in mm		

#### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

PBPC-8



PBPC-8		
Dim	Min	Max
A	18.54	19.56
B	6.35	7.60
C	22.20	-
D	1.27Ø Typ	
E	5.33	7.37
G	3.60Ø	4.00Ø
H	12.70 Typ	
J	2.38 X 45° Typ	
All Dimensions in mm		

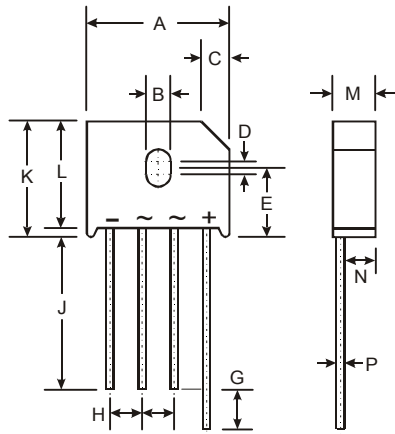
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

PBU



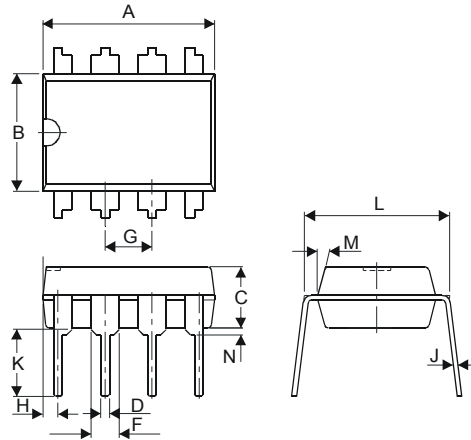
PBU		
Dim	Min	Max
A	22.70	23.70
B	3.80	4.10
C	4.20	4.70
D	1.70	2.20
E	10.30	11.30
G	4.50	6.80
H	4.80	5.80
J	25.40	-
K	-	19.30
L	16.80	17.80
M	6.60	7.10
N	4.70	5.20
P	1.20	1.30
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

PDIP-8



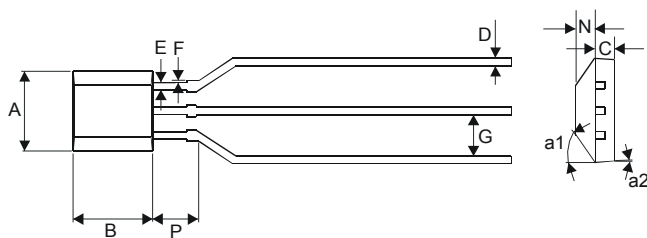
PDIP-8		
Dim	Min	Max
A	9.02	9.53
B	6.15	6.35
C	3.10	3.50
D	0.36	0.56
F	1.40	1.65
G	2.54 typ.	
H	0.71	0.97
J	0.20	0.36
K	2.92	3.81
L	7.62	8.26
M	-	15°
N	0.38 (min)	
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

SIP-3 (Ammo Pack)



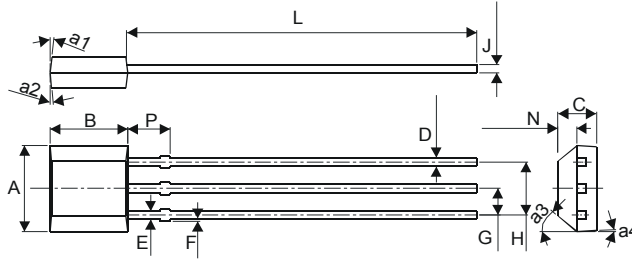
SIP-3 (Ammo Pack)		
Dim	Min	Max
A	3.9	4.3
a1	45° Typ	
a2	3° Typ	
B	2.8	3.2
C	1.40	1.60
D	0.35	0.41
E	0.43	0.48
F	0	0.2
G	2.4	2.9
N	0.63	0.84
P	1.55	-
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

SIP-3 (Bulk Pack)



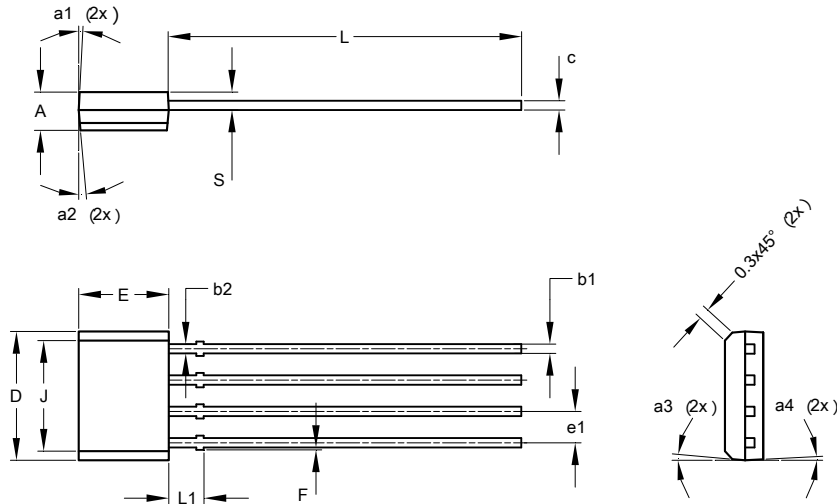
SIP-3 (Bulk Pack)		
Dim	Min	Max
A	3.9	4.3
a1	5° Typ	
a2	5° Typ	
a3	45° Typ	
a4	3° Typ	
B	2.8	3.2
C	1.40	1.60
D	0.33	0.432
E	0.40	0.508
F	0	0.2
G	1.24	1.30
H	2.51	2.57
J	0.35	0.43
L	14.0	15.0
N	0.63	0.84
P	1.55	-
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

SIP-4



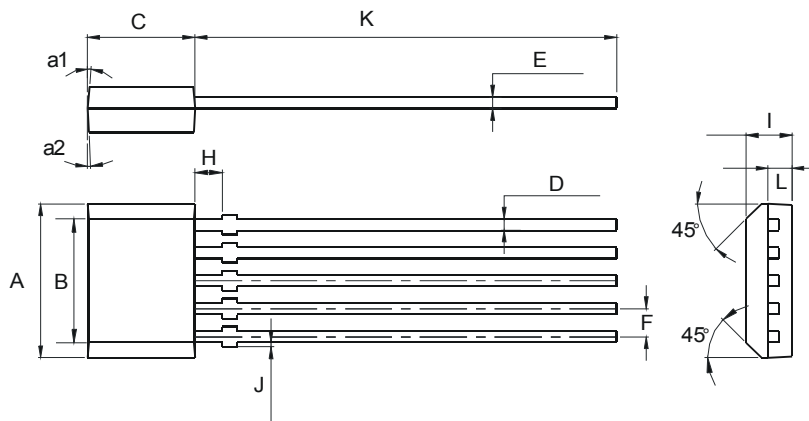
SIP-4			
Dim	Min	Max	Typ
A	1.45	1.65	1.55
b1	0.38	0.44	0.40
b2	-	-	0.48
c	0.35	0.45	0.40
D	5.12	5.32	5.22
e1	1.24	1.30	1.27
E	3.55	3.75	3.65
F	0.00	0.20	-
J	4.10	4.30	4.20
L	14.00	14.60	14.30
L1	1.32	1.52	1.42
S	0.63	0.83	0.73
a1	-	5°	3°
a2	4°	7°	5°
a3	4°	7°	5°
a4	-	5°	3°
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

SIP-5

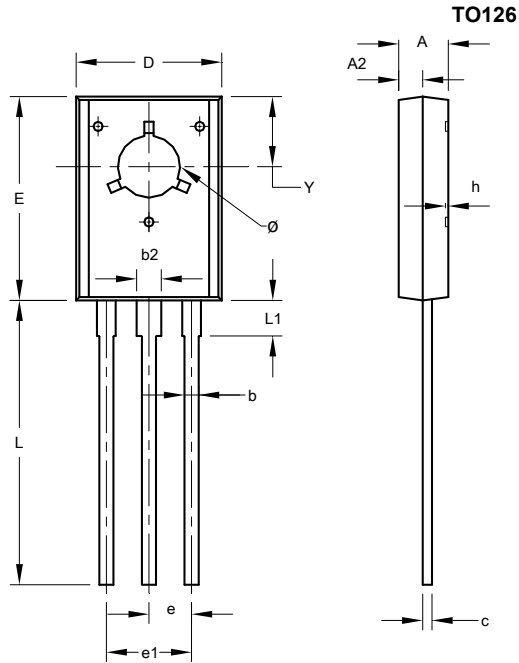


SIP-5		
Dim	Min	Max
A	5.12	5.32
B	4.10	4.30
C	3.55	3.75
D	0.38	0.44
E	0.35	0.41
F	0.92	0.98
H	1.32	1.52
I	1.45	1.65
J	0.00	0.2
K	13.00	15.5
L	0.63	0.83
a1	3°	5°
a2	5°	7°
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



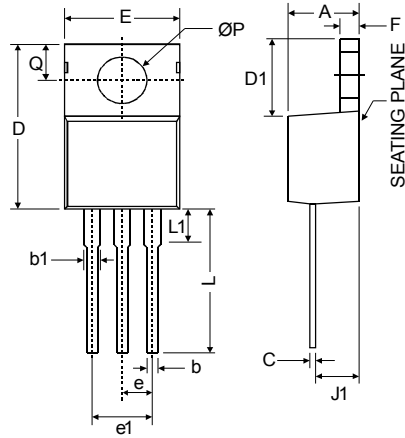
TO126			
Dim	Min	Max	Typ
A	2.400	2.900	-
A2	1.060	1.500	-
b	0.660	0.860	-
b2	1.170	1.470	-
c	0.400	0.600	-
D	7.400	8.200	-
E	10.60	11.20	-
e	-	-	2.280
e1	-	-	4.560
h	0.00	0.30	-
L	14.50	15.90	-
L1	1.700	2.100	-
Y	3.600	3.900	-
Ø	3.100	3.550	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

TO220-3



TO220-3		
Dim	Min	Max
A	3.55	4.85
b	0.51	1.14
b1	1.14	1.78
C	0.31	1.14
D	14.20	16.50
D1	5.84	6.86
E	9.70	10.70
e	2.79	2.99
e1	4.83	5.33
F	0.51	1.40
J1	2.03	2.92
L	12.72	14.72
L1	3.66	6.35
P	3.53	4.09
Q	2.54	3.43
All Dimensions in mm		

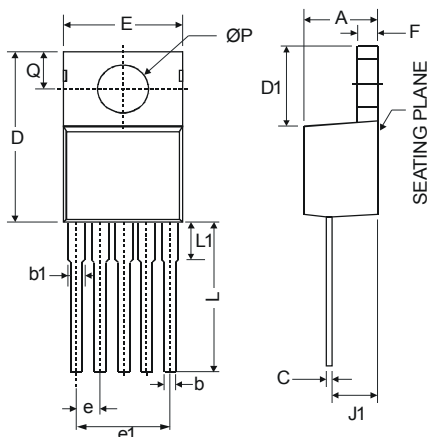
### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.



## Package Outline Dimensions

TO220-5



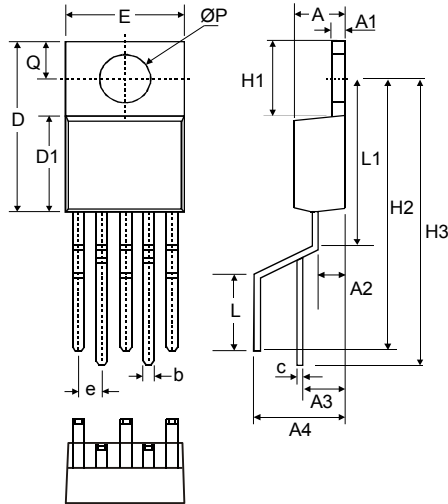
TO220-5		
Dim	Min	Max
A	3.55	4.85
b	0.51	1.14
b1	1.14	1.78
C	0.31	1.14
D	14.20	16.50
D1	5.84	6.86
E	9.78	10.54
e	1.6	1.8
e1	6.6	7.0
F	0.51	1.40
J1	2.03	2.92
L	12.72	14.72
L1	3.66	6.35
P	3.53	4.09
Q	2.54	3.43
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

TO220-5(R)



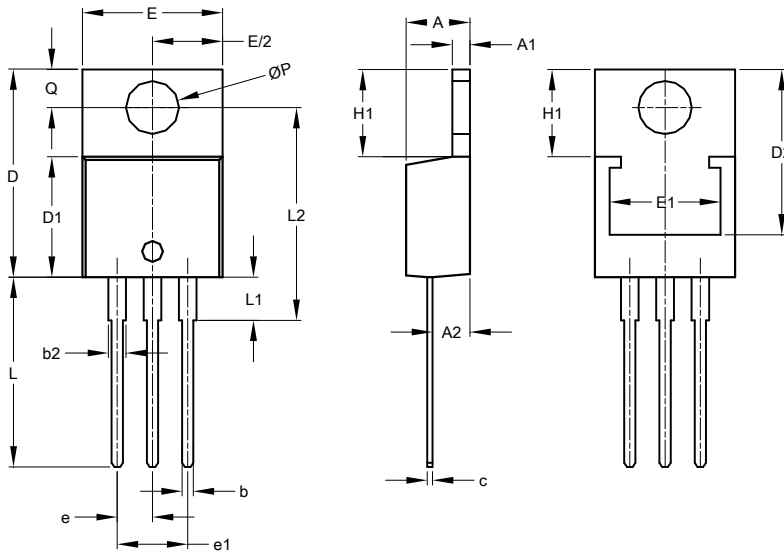
TO220-5(R)			
Dim	Min	Typ	Max
A	4.37	4.57	4.77
A1	1.12	1.27	1.40
A2	2.45	2.65	2.85
A3	4.10	4.40	4.70
A4	7.95	8.25	8.55
b	0.64	0.79	0.94
c	0.35	0.38	0.55
D	14.80	15.00	15.20
D1	8.50	8.70	8.90
e	-	1.70	-
E	9.96	10.16	10.36
H1	6.10	6.30	6.50
H2	21.32	22.12	22.92
H3	24.15	24.95	25.75
L	-	6.30	-
L1	13.10	13.50	13.90
P	3.64	3.84	4.04
Q	2.55	2.75	2.95
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

TO220AB

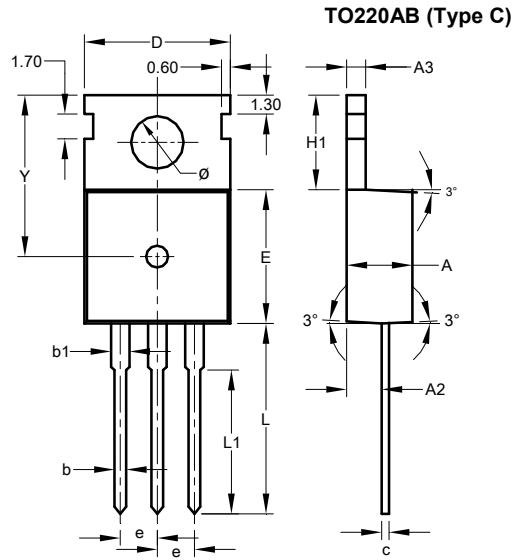


TO220AB			
Dim	Min	Max	Typ
A	3.56	4.82	-
A1	0.51	1.39	-
A2	2.04	2.92	-
b	0.39	1.01	0.81
b2	1.15	1.77	1.24
c	0.356	0.61	-
D	14.22	16.51	-
D1	8.39	9.01	-
D2	11.45	12.87	-
e	-	-	2.54
e1	-	-	5.08
E	9.66	10.66	-
E1	6.86	8.89	-
H1	5.85	6.85	-
L	12.70	14.73	-
L1	-	6.35	-
L2	15.80	16.20	16.00
P	3.54	4.08	-
Q	2.54	3.42	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

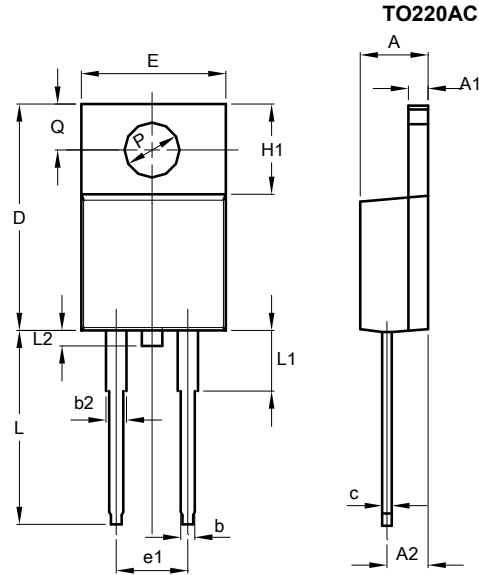


TO220AB Type C			
Dim	Min	Max	Typ
A	-	-	4.500
A2	-	-	2.400
A3	-	-	1.300
b	0.700	0.900	-
b1	-	-	1.270
c	0.400	0.600	-
D	9.800	10.20	-
E	9.00	9.40	-
e	-	-	2.54
H1	6.30	6.70	-
L	12.60	13.60	-
L1	9.60	10.60	-
Y	-	-	11.10
Ø	3.560	3.640	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



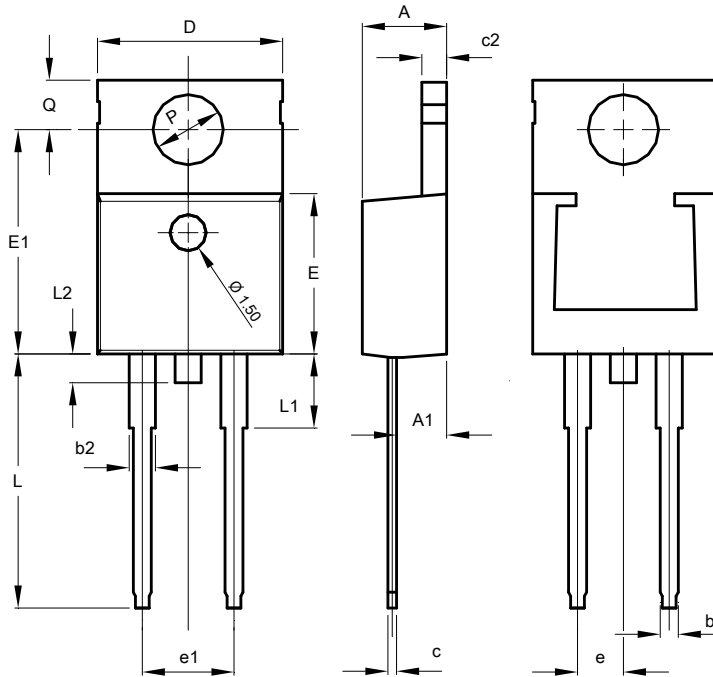
TO220AC			
Dim	Min	Typ	Max
A	4.40	-	4.82
A1	1.1	-	1.40
A2	2.05	-	2.92
b	0.72	-	1.00
b2	1.16	-	1.45
c	0.36	-	0.68
D	14.70	-	15.87
e1	5.08		
E	9.80	-	10.26
H1	5.80	-	6.40
L	12.70	-	13.96
L1	3.56	-	4.50
P	3.70	-	3.90
Q	2.54	-	3.30
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

TO220AC (13.7mm Min Lead Length)



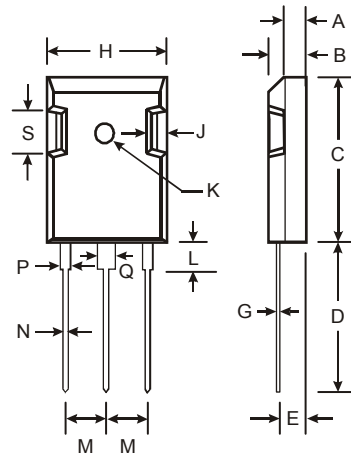
TO220AC (13.7mm Min Lead Length)			
Dim	Min	Max	Typ
A	4.470	4.670	-
A1	2.520	2.820	-
b	0.710	0.910	0.813
b2	1.170	1.370	1.270
c	0.279	0.483	-
c2	1.170	1.370	-
D	10.010	10.310	-
E	8.763	9.017	8.890
E1	12.294	12.548	12.446
e	2.54BSC		
e1	4.980	5.180	-
L	13.700	14.100	-
L1	4.04	4.19	4.11
L2	-	1.60	-
ØP	3.790	3.890	-
Q	2.642	2.946	2.743
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

TO247



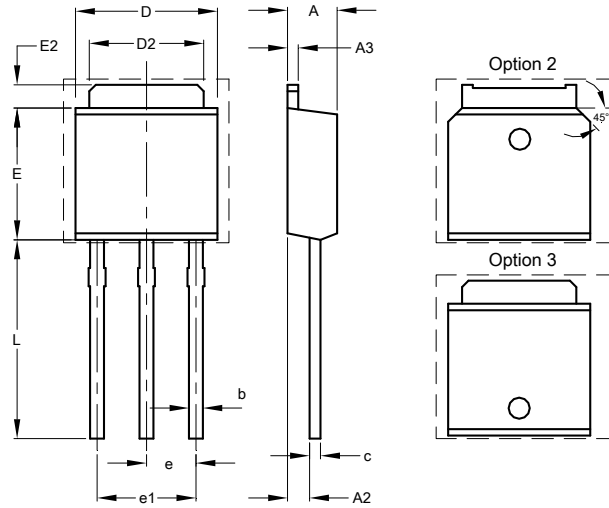
TO247		
Dim	Min	Max
A	1.9	2.1
B	4.85	5.15
C	20.3	21.75
D	19.60	20.1
E	2.2	2.6
G	0.51	0.76
H	15.45	16.25
J	1.93	2.18
K	2.9Ø	3.2Ø
L	3.78	4.38
M	5.2	5.7
N	1.0	1.4
P	1.8	2.2
Q	2.8	3.2
S	4.4 Typ	
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

**TO251**



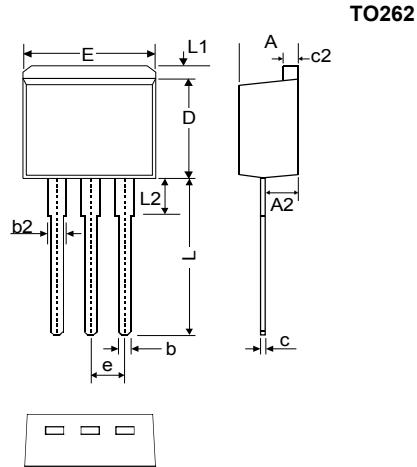
TO251		
Dim	Min	Max
A	2.200	2.400
A2	0.890	1.150
A3	0.450	0.550
b	0.550	0.740
c	0.450	0.570
D	6.400	6.750
D2	5.200	5.400
E	5.950	6.250
E2	0.900	1.250
e	2.240	2.340
e1	4.430	4.730
L	8.900	9.500
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

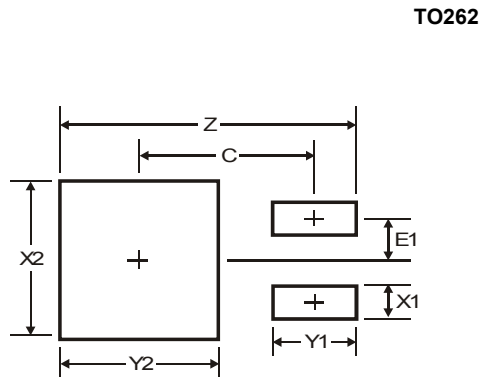


## Package Outline Dimensions



TO262			
Dim	Min	Max	Typ
A	4.06	4.83	4.57
A2	2.03	2.79	2.67
b	0.64	0.99	-
b2	1.14	1.40	1.24
c	0.356	0.74	-
c2	1.14	1.40	1.27
D	8.64	9.65	8.70
E	9.65	10.29	10.11
e	2.54 Typ		
L	12.70	14.73	13.60
L1	-	1.67	-
L2	-	4.00	-
All Dimensions in mm			

## Suggested Pad Layout

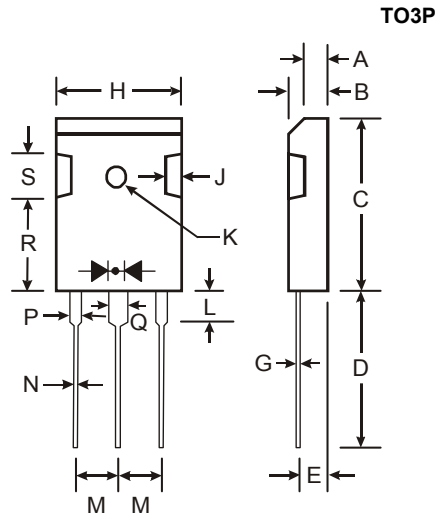


Dimensions	Value (in mm)
Z	16.9
X1	1.1
X2	10.8
Y1	3.5
Y2	11.4
C	9.5
E1	2.5

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



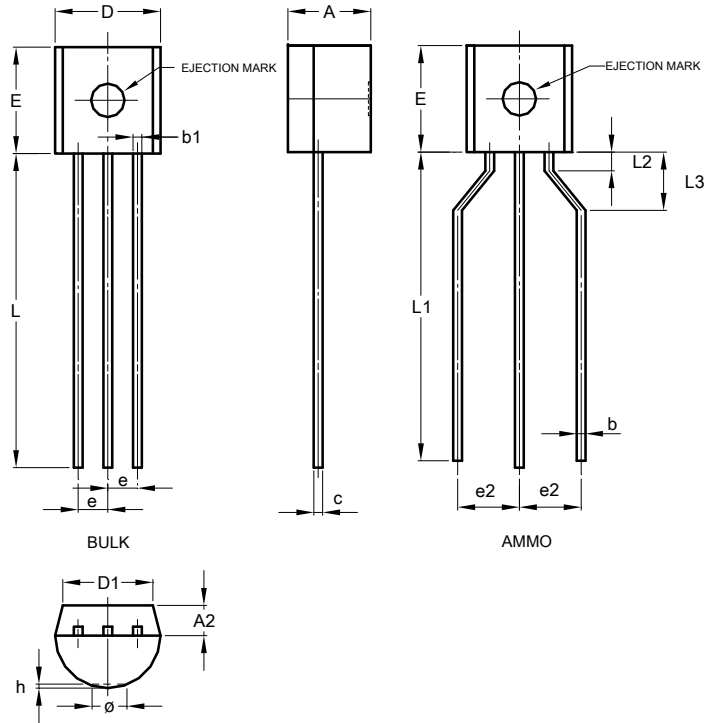
TO-3P		
Dim	Min	Max
A	1.88	2.08
B	4.68	5.36
C	20.63	22.38
D	18.5	21.5
E	2.10	2.40
G	0.51	0.76
H	15.38	16.25
J	1.90	2.70
K	2.90 $\varnothing$	3.65 $\varnothing$
L	3.78	4.50
M	5.20	5.70
N	0.89	1.53
P	1.82	2.46
Q	2.92	3.23
R	11.70	12.84
S	-	6.10
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

### TO92

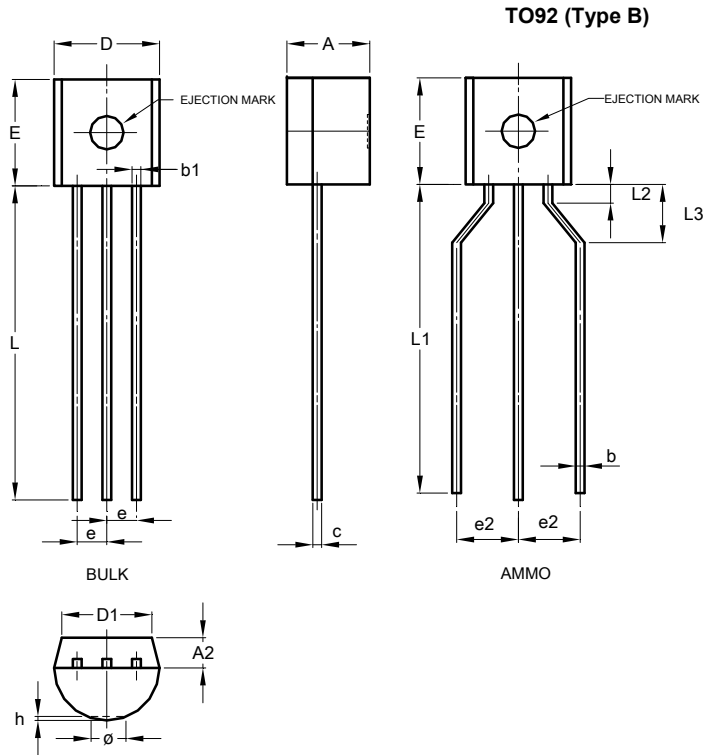


TO92			
Dim	Min	Max	Typ
A	3.45	3.66	-
A2	1.22	1.37	-
b	-	-	0.38
c	-	-	0.38
D	4.27	4.78	-
D1	-	-	3.87
E	4.32	4.83	-
e	-	-	1.27
e2	2.40	2.90	-
L	12.98	15.00	-
L1	12.80	15.00	-
L2	0.80	-	-
L3	2.00	3.00	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

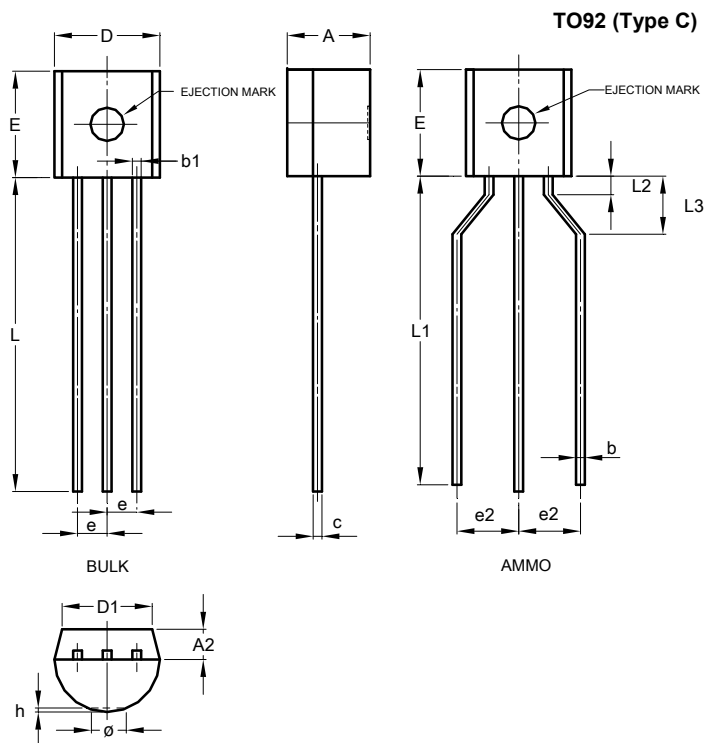


TO92 Type B			
Dim	Min	Max	Typ
A	3.30	3.70	-
A2	1.00	1.40	-
b	0.38	0.55	-
b1	0.36	0.76	-
c	0.32	0.51	-
D	4.40	4.80	-
D1	3.430	-	-
E	4.30	4.70	-
e	-	-	1.27
e2	-	-	2.54
h	0.00	0.38	-
L	12.50	15.50	-
L1	12.50	14.50	-
L3	2.50	4.00	-
Ø	-	1.60	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

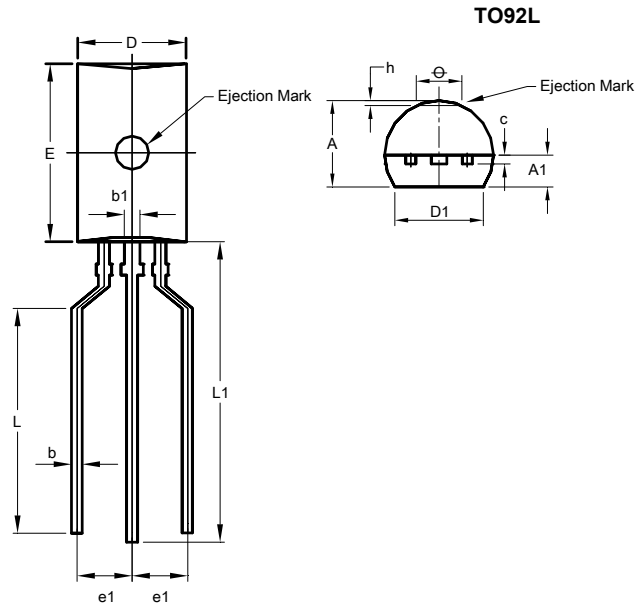


TO92 Type C			
Dim	Min	Max	Typ
A	3.30	3.70	-
A2	1.10	1.40	-
b	0.38	0.55	-
c	0.36	0.51	-
D	4.40	4.70	-
D1	3.430	-	-
E	4.30	4.70	-
e	-	-	1.27
e2	2.440	2.640	-
h	0.00	0.38	-
L	14.10	14.50	-
L1	12.50	14.50	-
L3	2.50	3.50	-
Ø	-	1.60	-
All Dimensions in mm			

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions



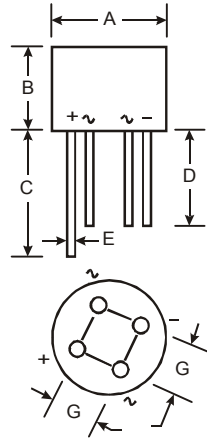
TO92L		
Dim	Min	Max
A	3.70	4.10
A1	1.28	1.58
b	0.35	0.55
b1	0.60	0.80
c	0.35	0.45
D	4.70	5.10
D1	4.00	-
e1	2.30	2.70
E	7.80	8.20
L	10.10	10.70
L1	13.80	14.20
h	0.00	0.30
θ	-	1.60
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.

## Package Outline Dimensions

WOG



WOG		
Dim	Min	Max
A	8.84	9.86
B	4.00	4.60
C	27.90	-
D	25.40	-
E	0.71	0.81
G	4.60	5.60
All Dimensions in mm		

### ALL DIMENSIONS ARE NOMINAL VALUES SHOWN IN MILLIMETERS

Note: The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application. These numbers may be modified based on user equipment capability or fabrication criteria. A more robust pattern may be desired for wave soldering and is calculated by adding 0.2 mm to the 'Z' dimension. For further information, please reference document IPC-7351A, Naming Convention for Standard SMT Land Patterns, and for International grid details, please see document IEC, Publication 97.