

JEDEC
SOLID STATE
PRODUCT OUTLINE

THIS REGISTERED OUTLINE HAS BEEN PREPARED BY THE JEDEC JC-11 COMMITTEE AND REFLECTS A PRODUCT WITH ANTICIPATED USAGE IN THE ELECTRONICS INDUSTRY; CHANGES ARE LIKELY TO OCCUR.

TITLE
LOW PROFILE SMALL OUTLINE
J-LEAD PACKAGE (LSOJ)

PRSO-J/LSOJ

ISSUE

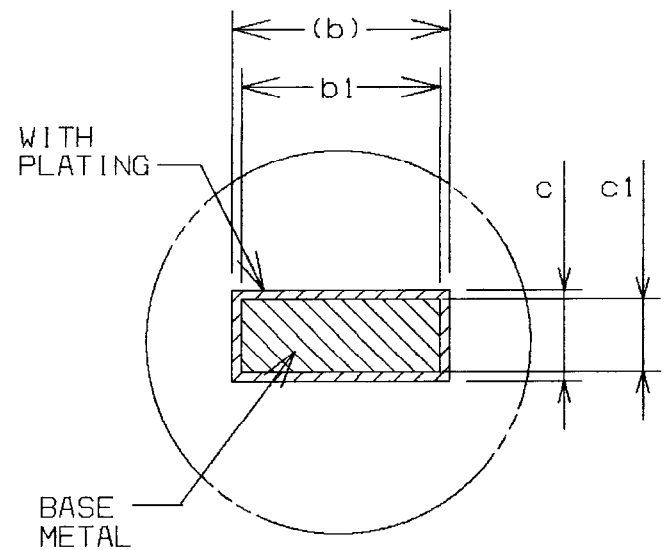
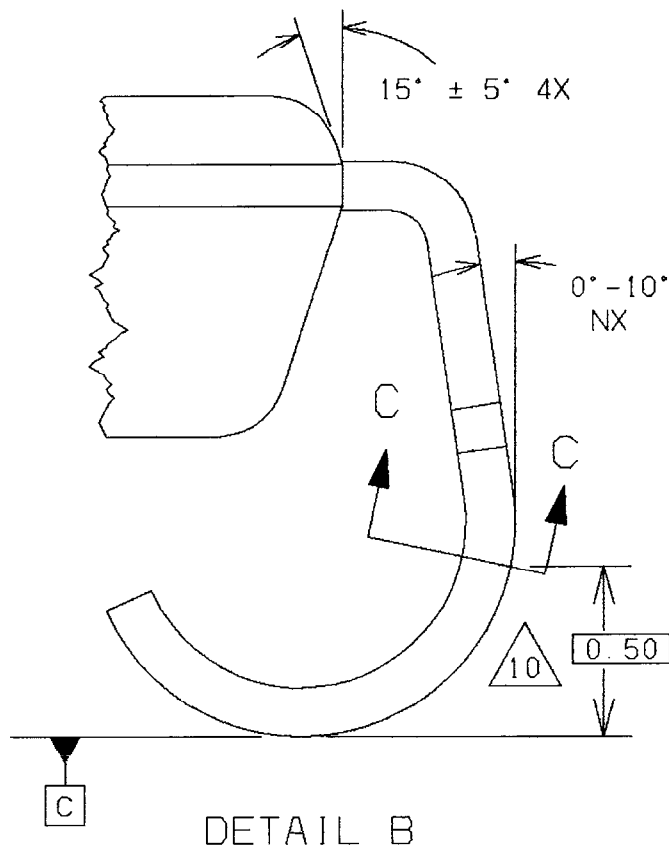
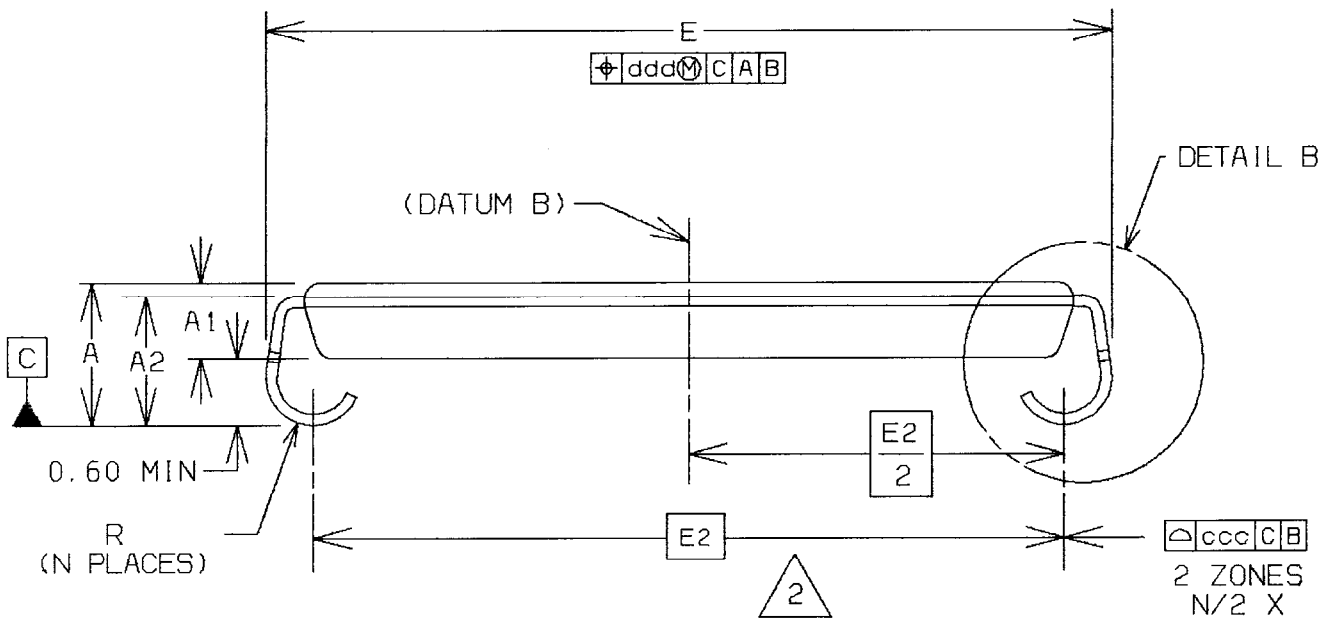
B

DATE

6/99

MO-199

1
OF 5



SYMBOL	COMMON DIMENSIONS			NOTE
	DIMENSIONS IN MILLIMETERS			
	MIN	NOM	MAX	
C	0.12	--	0.21	4, 5 2
C1	0.12	0.15	0.16	
E1	10.15 BASIC			
E2	9.90 BASIC			
R	0.55	0.65	0.75	
COMMON TOLERANCES				
ccc	0.40			2
ddd	0.15			
NOTE	1, 3			
REF.	11-512, 11-476			
ISSUE	B, A			

SYMBOL	VARIATIONS												NOTE	
	AA			AB			AC			AD				
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX		
A	--	--	2.05	--	--	2.05	--	--	2.05	--	--	2.05	6	
A1	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05		
A2	1.00	--	--	1.00	--	--	1.00	--	--	1.00	--	--		
b	0.36	--	0.52	0.36	--	0.52	0.36	--	0.52	0.36	--	0.52		
b1	0.36	0.40	0.44	0.36	0.40	0.44	0.36	0.40	0.44	0.36	0.40	0.44		
b2	0.62	0.66	0.79	0.62	0.66	0.79	0.62	0.66	0.79	0.62	0.66	0.79		
D	18.40 BASIC			20.95 BASIC			23.50 BASIC			26.05 BASIC			4, 5	
E	11.00	11.15	11.30	11.00	11.15	11.30	11.00	11.15	11.30	11.00	11.15	11.30		
e	1.27 BASIC			1.27 BASIC			1.27 BASIC			1.27 BASIC			9	
N	28			32			36			40				
aaa	0.20			0.20			0.20			0.20				
bbb	0.20			0.20			0.20			0.20				
NOTE	1, 3			1, 3			1, 3			1, 3				
REF.	11-512, 11-476			11-512, 11-476			11-512, 11-476			11-512, 11-476				
ISSUE	B, A			B, A			B, A			B, A				
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SYMBOL	VARIATIONS												NOTE
	AE			AF			AG			AH			
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	
A	--	--	2.05	--	--	2.05	--	--	2.05	--	--	2.05	6
A1	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05	
A2	1.00	--	--	1.00	--	--	1.00	--	--	1.00	--	--	
b	0.36	--	0.52	0.36	--	0.52	0.26	--	0.40	0.26	--	0.40	
b1	0.36	0.40	0.44	0.36	0.40	0.44	0.26	0.30	0.35	0.26	0.30	0.35	
b2	0.62	0.66	0.79	0.62	0.66	0.79	0.46	0.50	0.63	0.46	0.50	0.63	
D	27.30 BASIC			28.60 BASIC			18.40 BASIC			20.95 BASIC			4, 5
E	11.00	11.15	11.30	11.00	11.15	11.30	11.00	11.15	11.30	11.00	11.15	11.30	
e	1.27 BASIC			1.27 BASIC			0.80 BASIC			0.80 BASIC			9
N	42			44			44			50			
aaa	0.20			0.20			0.15			0.15			
bbb	0.20			0.20			0.15			0.15			
NOTE	1, 3			1, 3			1, 3			1, 3			
REF.	11-512, 11-476			11-512, 11-476			11-512, 11-476			11-512, 11-476			
ISSUE	B, A			B, A			B, A			B, A			

SYMBOL	VARIATIONS												NOTE
	AI			AJ			AK						
	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	MIN	NOM	MAX	
A	--	--	2.05	--	--	2.05	--	--	2.05				6
A1	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05				
A2	1.00	--	--	1.00	--	--	1.00	--	--				
b	0.26	--	0.40	0.26	--	0.40	0.26	--	0.40				
b1	0.26	0.30	0.35	0.26	0.30	0.35	0.26	0.30	0.35				
b2	0.46	0.50	0.63	0.46	0.50	0.63	0.26	0.30	0.35				
D	22.25 BASIC			28.60 BASIC			22.25 BASIC						4, 5
E	11.00	11.15	11.30	11.00	11.15	11.30	11.00	11.15	11.30				
e	0.80 BASIC			0.80 BASIC			0.65 BASIC						9
N	54			70			66						
aaa	0.15			0.15			0.15						
bbb	0.15			0.15			0.15						
NOTE	1, 3			1, 3			1, 3						
REF.	11-512, 11-476			11-512, 11-476			11-512						
ISSUE	B, A			B, A			B						

JEDEC SOLID STATE PRODUCT OUTLINE		LOW PROFILE SMALL OUTLINE J-LEAD PACKAGE (LSOJ)				ISSUE B	DATE 6/99	MO-199	4 OF 5
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NOTES

1 DIMENSIONING AND TOLERANCING CONFORM TO ASME Y14.5M-1994.

2 TO BE DETERMINED AT SEATING PLANE C.

3 ALL DIMENSIONS IN MILLIMETERS.

4 DIMENSION D DOES NOT INCLUDE MOLD FLASH, TIE BAR BURRS, AND GATE BURRS. MOLD FLASH, TIE BAR BURRS, AND GATE BURRS SHALL NOT EXCEED 0.15 mm PER END. DIMENSION E1 DOES NOT INCLUDE INTERLEAD FLASH. INTERLEAD FLASH SHALL NOT EXCEED 0.25 mm PER SIDE.

5 THE PACKAGE TOP MAY BE SMALLER THAN THE PACKAGE BOTTOM. DIMENSIONS D AND E1 AND, HENCE, DATUMS A AND B, ARE DETERMINED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND INTERLEAD FLASH, BUT INCLUDE ANY MISMATCH BETWEEN THE TOP AND BOTTOM OF THE PLASTIC BODY.

6 DIMENSION b2 DOES NOT INCLUDE DAMBAR PROTRUSION OR INTRUSION. THE DAMBAR PROTRUSION(S) SHALL NOT CAUSE THE SHOULDER WIDTH TO EXCEED b2 MAXIMUM BY MORE THAN X mm. THE DAMBAR INTRUSION(S) SHALL NOT REDUCE THE SHOULDER WIDTH TO LESS THAN 0.03 mm BELOW b2 MINIMUM.

e	X
1.27	0.13
0.80	0.08
0.65	0.08

7 THE LEAD 1 IDENTIFIER AND LEAD NUMBERING CONVENTION SHALL CONFORM TO JESD 95 SPP-012. DETAILS OF LEAD 1 IDENTIFIER ARE OPTIONAL, BUT MUST BE LOCATED WITHIN THE ZONE INDICATED. THE LEAD 1 IDENTIFIER MAY BE EITHER A MOLDED OR A MARKED FEATURE.

8 EXACT DESIGN OF THIS FEATURE IS OPTIONAL.

9 N IS THE MAXIMUM NUMBER OF LEADS.

10 DISTANCE OF SECTION C-C ABOVE SEATING PLANE.