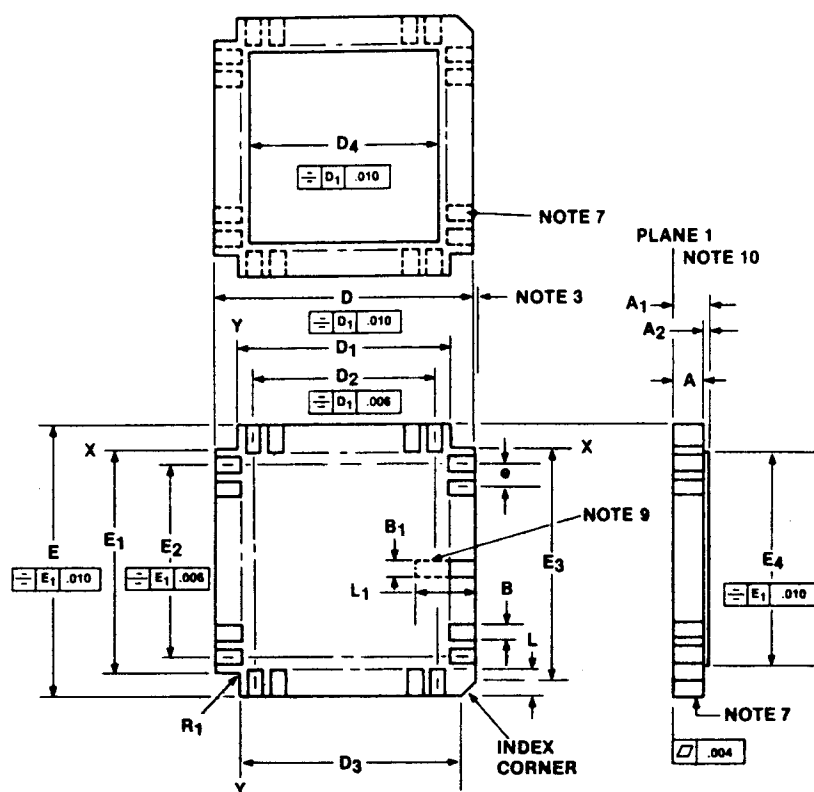


MS003

.050" CENTER, LEADLESS TYPE B



NOTES:

- REFER TO APPLICABLE SYMBOL LIST.
- DIMENSIONING AND TOLERANCING PER ANSI Y14.5 1973.
- OVERALL MATERIAL PROTRUSION OF 0.020" (0.508mm) MAXIMUM ABOVE THE MAXIMUM DIMENSION SHOWN, NOT TO EXCEED 0.010" (0.25mm) MAXIMUM PER SIDE.
- RELIEF ON CORNER TERMINAL MAXIMUM DIMENSION PERMISSIBLE.
- N IS THE MAXIMUM QUANTITY OF TERMINAL POSITIONS. REFER TO NUMBERING CONVENTION.
- X AND Y ARE REFERENCE DATUMS.
- ELECTRICAL CONNECTION IS REQUIRED ON PLANE 1. METALLIZATION IS OPTIONAL ON PLANE 2. HOWEVER IF PLANE 2 IS METALLIZED IT MUST BE ELECTRICALLY CONNECTED.
- DIMENSIONS VARY IN DIRECT PROPORTION TO FEATURE SIZE OF D_1 AND E_1 .
- FEATURES FOR ELECTRICAL/OPTICAL ORIENTATION OR HANDLING PURPOSES MUST BE WITHIN THE AREA SHOWN.
- PLANE 1 IS HEAT RADIATING SURFACE. METALLIZATION IS OPTIONAL, HOWEVER IF PRESENT, A CLEARANCE OF 0.020" (0.508mm) MUST BE MAINTAINED FROM ALL FEATURES.
- DIMENSION A_1 CONTROLS THE OVERALL PACKAGE THICKNESS.
- CONTROLLING DIMENSION: INCH.

NOTE				
REF.				
ISSUE				
JEDEC SOLID STATE PRODUCT OUTLINES		TITLE .050" CENTER LEADLESS TYPE B	ISSUE A	DATE 9/29/80
		MS003		

ALL DIMENSIONS SHOWN IN INCHES

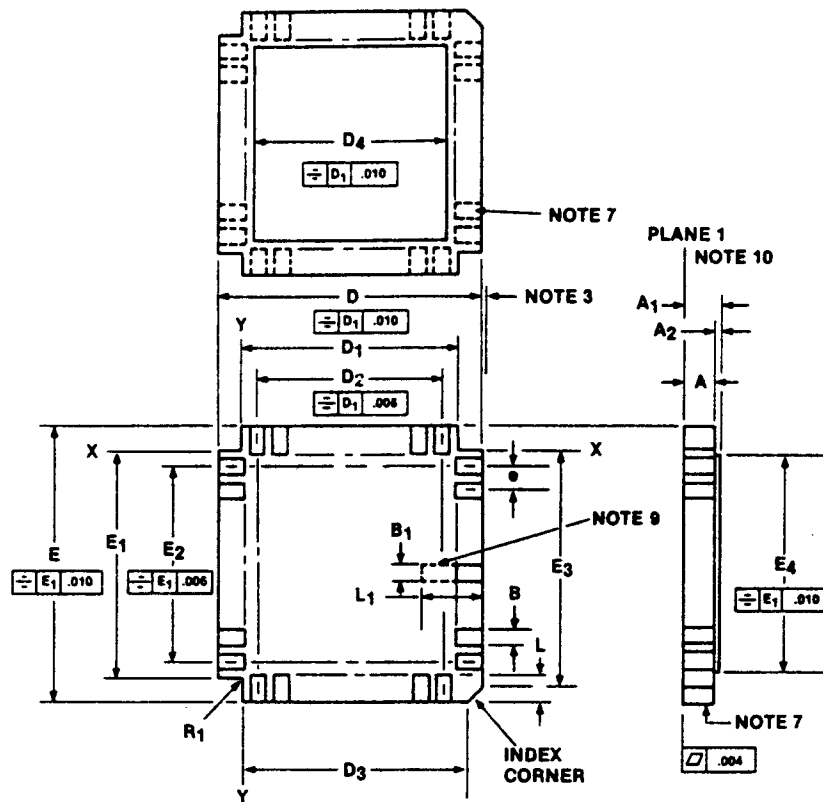
SYMBOL	VARIATIONS											
	BA		NOTE	BB		NOTE	BC		NOTE	BD		NOTE
	MIN.	MAX.		MIN.	MAX.		MIN.	MAX.		MIN.	MAX.	
A	.045	.120	11	.045	.120	11	.045	.120	11	.045	.120	11
A ₁	.055	.120		.055	.120		.055	.120		.055	.120	
A ₂	.010	.030		.010	.030		.010	.030		.010	.030	
B	.033	.039	3	.033	.039	3	.033	.039	3	.033	.039	3
B ₁	.022	.041		.022	.041		.022	.041		.022	.041	
D	.445	.455		.643	.657		.742	.758		.940	.960	
D ₁	.345	.355	8	.544	.556	8	.643	.657	8	.842	.858	8
D ₂	.300			.500			.600			.800		
D ₃	.365 REF			.566 REF			.667 REF			.868 REF		
D ₄	.278	.320	3	.350	.520	3	.386	.620	3	.458	.820	3
E	.445	.455		.643	.657		.742	.758		.940	.960	
E ₁	.345	.355		.544	.556		.643	.657		.842	.858	
E ₂	.300		8	.500		8	.600		8	.800		8
E ₃	.365 REF			.566 REF			.667 REF			.868 REF		
E ₄	.278	.320		.350	.520		.386	.620		.458	.820	
e	.050 BSC		4	.050 BSC		4	.050 BSC		4	.050 BSC		4
L	.045	.055		.045	.055		.045	.055		.045	.055	
L ₁	.077	.093		.077	.093		.077	.093		.077	.093	
N	28		5	44		5	52		5	68		5
R ₁	.000	.010		.000	.010		.000	.010		.000	.010	

ALL DIMENSIONS SHOWN IN MILLIMETERS

SYMBOL	VARIATIONS											
	BA		NOTE	BB		NOTE	BC		NOTE	BD		NOTE
	MIN.	MAX.		MIN.	MAX.		MIN.	MAX.		MIN.	MAX.	
A	1.15	3.04	11	1.15	3.04	11	1.15	3.04	11	1.15	3.04	11
A ₁	1.40	3.04		1.40	3.04		1.40	3.04		1.40	3.04	
A ₂	.26	.76		.26	.76		.26	.76		.26	.76	
B	.839	.990	3	.839	.990	3	.839	.990	3	.839	.990	3
B ₁	.56	1.04		.56	1.04		.56	1.04		.56	1.04	
D	11.31	11.55		16.34	16.68		18.85	19.25		23.88	24.38	
D ₁	8.77	9.01	8	13.82	14.12	8	16.34	16.68	8	21.39	21.79	8
D ₂	7.62			12.70			15.24			20.32		
D ₃	9.27 REF			14.38 REF			16.94 REF			22.05 REF		
D ₄	7.07	8.12	3	8.9	13.2	3	9.9	15.7	3	11.7	20.8	3
E	11.31	11.55		16.34	16.68		18.85	19.25		23.88	24.38	
E ₁	8.77	9.01		13.82	14.12		16.34	16.68		21.39	21.79	
E ₂	7.62		8	12.70		8	15.24		8	20.32		8
E ₃	9.27 REF			14.38 REF			16.94 REF			22.05 REF		
E ₄	7.07	8.12		8.9	13.2		9.9	15.7		11.7	20.8	
e	1.27 BSC		4	1.27 BSC		4	1.27 BSC		4	1.27 BSC		4
L	1.15	1.39		1.15	1.39		1.15	1.39		1.15	1.39	
L ₁	1.96	2.36		1.96	2.36		1.96	2.36		1.96	2.36	
N	28		5	44		5	52		5	68		5
R ₁	.00	.25		.00	.25		.00	.25		.00	.25	
NOTE	1, 2, 6, 7, 10, 12			1, 2, 6, 7, 10, 12			1, 2, 6, 7, 10, 12			1, 2, 6, 7, 10, 12		
REF.												
ISSUE												

JEDEC
SOLID STATE PRODUCT
OUTLINESTITLE
.050 CENTER
LEADLESS TYPE BISSUE
ADATE
9/29/80

MS003



NOTES:

- REFER TO APPLICABLE SYMBOL LIST.
- DIMENSIONING AND TOLERANCING PER ANSI Y14.5 1973.
- OVERALL MATERIAL PROTRUSION OF 0.020" (0.508mm) MAXIMUM ABOVE THE MAXIMUM DIMENSION SHOWN, NOT TO EXCEED 0.010" (0.25mm) MAXIMUM PER SIDE.
- RELIEF ON CORNER TERMINAL MAXIMUM DIMENSION PERMISSIBLE.
- N IS THE MAXIMUM QUANTITY OF TERMINAL POSITIONS. REFER TO NUMBERING CONVENTION.
- X AND Y ARE REFERENCE DATUMS.
- ELECTRICAL CONNECTION IS REQUIRED ON PLANE 1. METALLIZATION IS OPTIONAL ON PLANE 2. HOWEVER IF PLANE 2 IS METALLIZED IT MUST BE ELECTRICALLY CONNECTED.
- DIMENSIONS VARY IN DIRECT PROPORTION TO FEATURE SIZE OF D_1 AND E_1 .
- FEATURES FOR ELECTRICAL/OPTICAL ORIENTATION OR HANDLING PURPOSES MUST BE WITHIN THE AREA SHOWN.
- PLANE 1 IS HEAT RADIATING SURFACE. METALLIZATION IS OPTIONAL, HOWEVER IF PRESENT, A CLEARANCE OF .020" (.508mm) MUST BE MAINTAINED FROM ALL FEATURES.
- DIMENSION A_1 CONTROLS THE OVERALL PACKAGE THICKNESS.
- CONTROLLING DIMENSION: INCH.

NOTE				
REF.				
ISSUE				
JEDEC SOLID STATE PRODUCT OUTLINES		TITLE .050" CENTER LEADLESS TYPE B	ISSUE A	DATE 9/29/80
		MS003		

ALL DIMENSIONS SHOWN IN INCHES

SYMBOL	VARIATIONS											
	BE		NOTE	BF		NOTE	BG		NOTE	BH		NOTE
	MIN.	MAX.		MIN.	MAX		MIN.	MAX		MIN.	MAX.	
A	.055	.120	11	.055	.120	11	.055	.120	11	.055	.120	11
A ₁	.055	.120		.055	.120		.055	.120		.055	.120	
A ₂	.000	.040		.000	.040		.000	.040		.000	.040	
B	.033	.039	3	.037	.041	3	.037	.041	3	.037	.041	3
B ₁	.022	.041		.022	.041		.022	.041		.022	.041	
D	1.161	1.139		1.339	1.361		1.639	1.661		2.039	2.061	
D ₁	1.042	1.058	8	1.239	1.261	8	1.539	1.561	8	1.939	1.961	8
D ₂	1.000			1.200			1.500			1.900		
D ₃	1.069 REF			1.265 REF			1.565 REF			1.965 REF		
D ₄	.530	1.020	3	.602	1.220	3	.710	1.520	3	.822	1.920	3
E	1.139	1.161		1.339	1.361		1.639	1.661		2.039	2.061	
E ₁	1.042	1.058		1.239	1.261		1.539	1.561		1.939	1.961	
E ₂	1.000		8	1.200		8	1.500		8	1.900		8
E ₃	1.069 REF			1.265 REF			1.565 REF			1.965 REF		
E ₄	.530	1.020		.602	1.220		.710	1.520		.822	1.920	
e	.050 BSC		4	.050 BSC		4	.050 BSC		4	.050 BSC		4
L	.045	.055		.045	.055		.045	.055		.045	.055	
L ₁	.077	.093		.077	.093		.077	.093		.077	.093	
N	84		5	100		5	124		5	156		5
R ₁	.000	.010		.000	.010		.000	.010		.000	.010	

ALL DIMENSIONS SHOWN IN MILLIMETERS

SYMBOL	VARIATIONS											
	BE		NOTE	BF		NOTE	BG		NOTE	BH		NOTE
	MIN.	MAX.		MIN.	MAX		MIN.	MAX		MIN.	MAX.	
A	1.40	3.04	11	1.40	3.04	11	1.40	3.04	11	1.40	3.04	11
A ₁	1.40	3.04		1.40	3.04		1.40	3.04		1.40	3.04	
A ₂	.00	1.01		.00	1.01		.00	1.01		.00	1.01	
B	.839	.990		.940	1.041		.940	1.041		.940	1.041	
B ₁	.56	1.04	3	.56	1.04	3	.56	1.04	3	.56	1.04	3
D	28.93	29.48		34.02	34.56		41.64	42.18		51.80	52.34	
D ₁	26.47	26.87		31.48	32.02		39.10	39.64		49.26	49.80	
D ₂	25.40			30.48			38.10			48.26		
D ₃	27.15 REF		8	32.13 REF		8	39.75 REF		8	49.91 REF		8
D ₄	13.5	25.9		15.3	30.9		18.1	38.6		21	48	
E	28.91	29.51		34.02	34.56		41.64	42.18		51.80	52.34	
E ₁	26.47	26.87		31.48	32.02		39.10	39.64		49.26	49.80	
E ₂	25.40		8	30.48		8	38.10		8	48.26		8
E ₃	27.15 REF			32.13 REF			39.75 REF			49.91 REF		
E ₄	13.5	25.9		15.3	30.9		18.1	38.6		21	48	
e	1.27 BSC			1.27 BSC			1.27 BSC			1.27 BSC		
L	1.15	1.39	4	1.15	1.39	4	1.15	1.39	4	1.15	1.39	4
L ₁	1.96	2.36		1.96	2.36		1.96	2.36		1.96	2.36	
N	84		5	100		5	124		5	156		5
R ₁	.00	.25		.00	.25		.00	.25		.00	.25	
NOTE	1, 2, 6, 7, 10, 12			1, 2, 6, 7, 10, 12			1, 2, 6, 7, 10, 12			1, 2, 6, 7, 10, 12		
REF.												
ISSUE												

JEDEC
SOLID STATE PRODUCT
OUTLINESTITLE
.050" CENTER
LEADLESS TYPE BISSUE
A
DATE
9/29/80

MS003