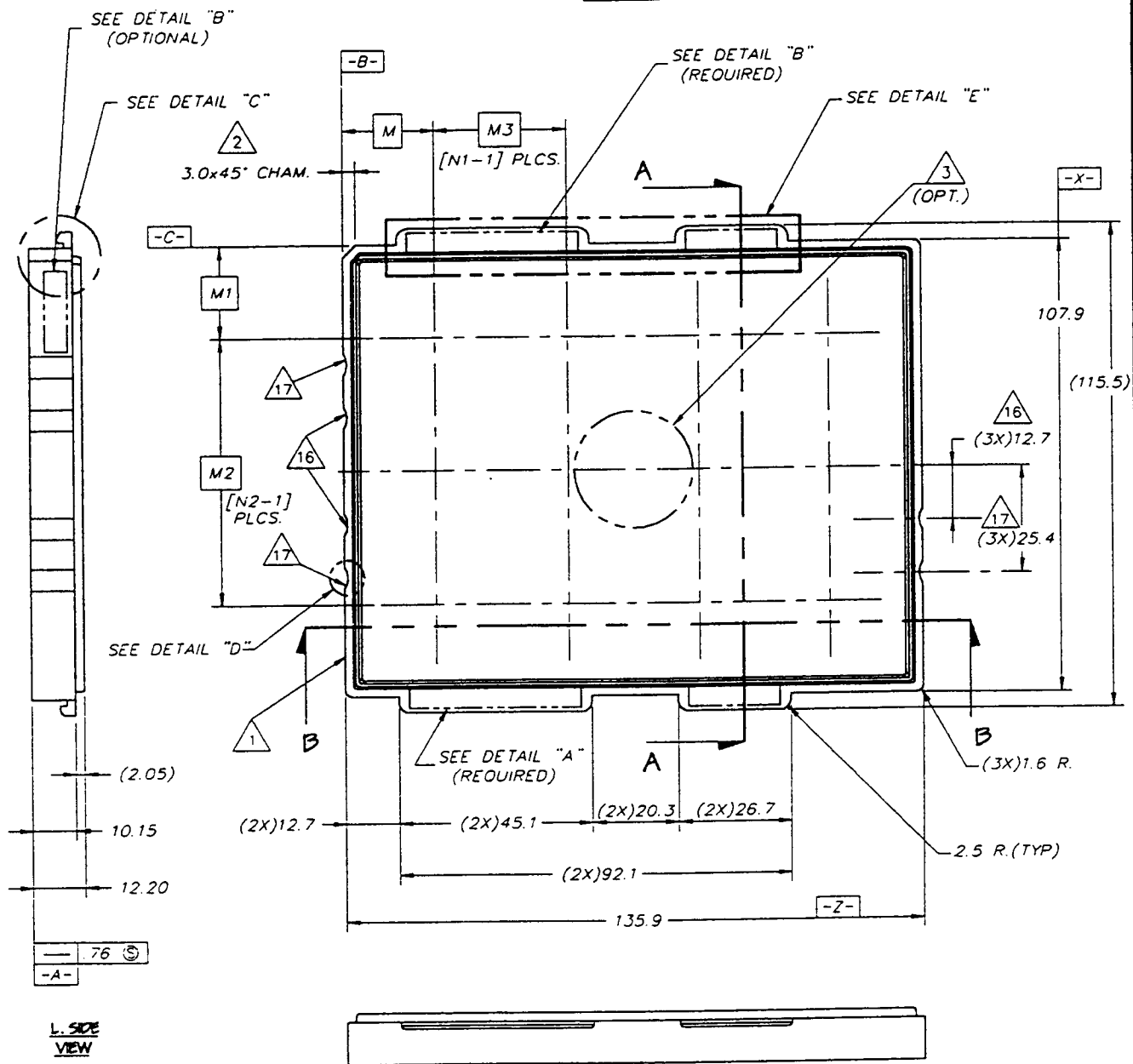


mm

PLAN VIEW



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Product Outline

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ELECTRONICS INDUSTRY; CHANGES ARE LIKELY TO OCCUR

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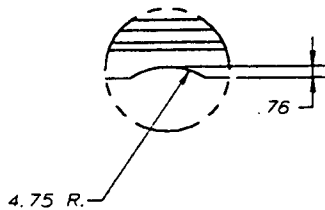
mm

XXX°C MAX

10

TEMP. RATING

DETAIL "A"



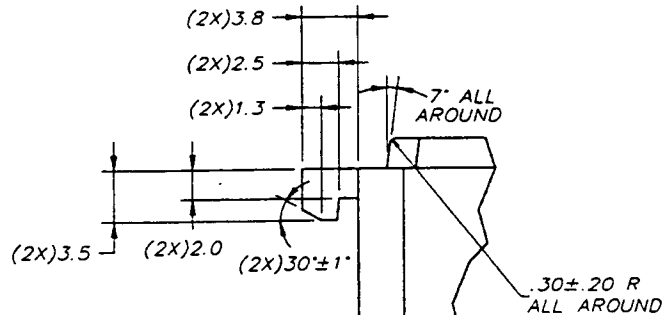
DETAIL "D"
ROTATED 90° CCW

XXXX (N4)

11

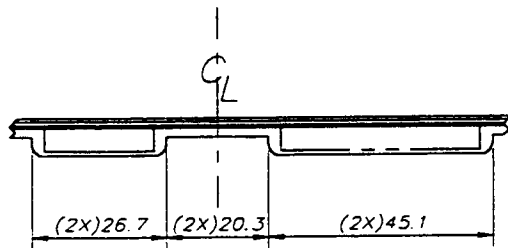
TRAY DESIGNATOR

DETAIL "B"

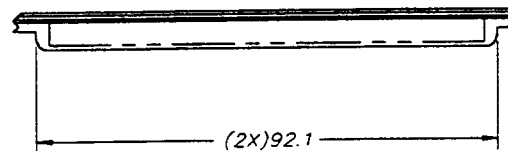


DETAIL "C"

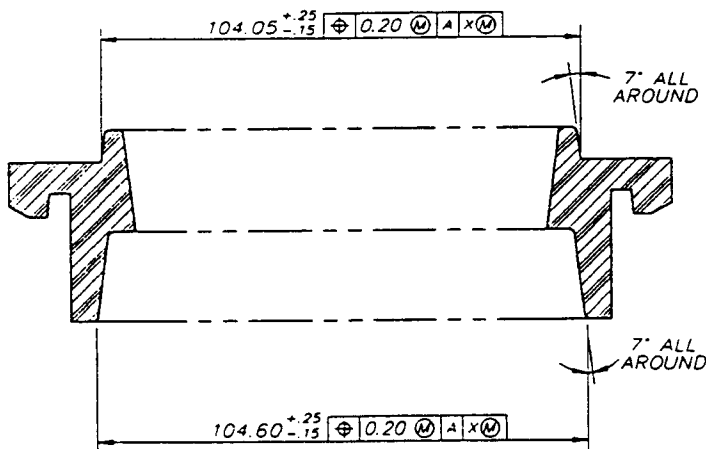
DETAIL "E"
END TAB OPTIONS



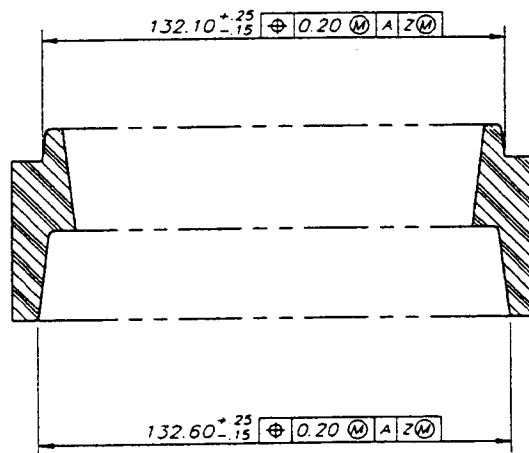
(NOTCHED END TAB)



(STANDARD END TAB)



SECTION A-A



SECTION B-B
(ROTATED 90° CW FOR CLARITY)

TRAY STACKING DETAIL

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NOTES:

- ① THESE SURFACES TO BE FREE OF SEAMS.
- ② CHAMFER DENOTES PACKAGE PIN 1 ORIENTATION.
- ③ TRAY VACUUM PICKUP METHOD REQUIRES A 28mm SQUARE (MINIMUM) WALLED PICKUP AREA, LOCATED IN THE CENTER OF THE TRAY.
- 4 N REFERS TO PACKAGE LEAD COUNTS SUPPORTED, FULLY POPULATED PACKAGE
- 5 TOTAL USABLE CELLS $N3 = N1 \times N2$.
- 6 PACKAGE INTERFACE CONTROLLED BY PACKAGE DESIGN AND LEAD FORM.
- 7 NON-TABULATED DIMENSIONS HAVE A TOLERANCE OF $.X=\pm 0.25$ $.XX=\pm 0.15$, ANGLES $\pm 0.5^\circ$
- 8 ALL DIMENSIONS ARE IN MILLIMETERS.
- 9 INTERPRET DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ANSI Y14.5M-1982.
- ⑩ XXX IS THE MAXIMUM OPERATING TEMPERATURE THE EMPTY TRAY CAN BE SUBJECTED TO FOR 48 CONTINUOUS HOURS WITHOUT VIOLATING THE DIMENSIONAL TOLERANCE OF THE TRAY.
- ⑪ N4 INDICATES PACKAGE SIZE/LEAD COUNT ACCOMMODATED.
- 12 DIMENSIONS M, M1, M2, AND M3 DEFINE THE CENTER LINES FOR THE CELL SITES.
- 13 ALL EXTERNAL TRAY SURFACES WHICH MAY COME IN CONTACT WITH THE DRY PACK BAGS SHALL BE FREE OF SHARP EDGES.
- 14 ALL TRAY MEASUREMENTS ARE TO BE MADE WITH THE TRAY UN-RESTRICTED.
- 15 AN ADDITIONAL ROW CAN BE ADDED TO VARIATION AA. THIS ADDITIONAL ROW WOULD CHANGE N2 TO 3, N3 TO 12 MAX, AND M2 TO 30.80. THIS MIDDLE ROW CAN BE DEPOPULATED IN ANY MANNER.
- ⑬ THESE SCALLOPS PRESENT ON 2 X 2 MATRIX ONLY.
- ⑭ THESE SCALLOPS PRESENT ON 4 X 2 MATRIX ONLY.

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BALL GRID ARRAY

VARIATION DIMENSIONS ARE IN MILLIMETERS

VARIATION	N4 PACKAGE BODY SIZE	N (LEAD COUNT)	N1 x N2 TRAY MATRIX
AA	25MM X 25MM	256-361-576	4 X 2
AA	27MM X 27MM	324-441-676	4 X 2
AA	29MM X 29MM	361-484-784	4 X 2
AB	31MM X 31MM	400-576-900	2 X 2
AB	33MM X 33MM, 32.5MM X 32.5MM	441-484-625-676-1024	2 X 2
AB	35MM X 35MM	529-729-1156	2 X 2
AB	37.5MM X 37.5MM	625-841-1369	2 X 2
AB	40MM X 40MM	676-961-1521	2 X 2
AB	42.5MM X 42.5MM	784-1089-1764	2 X 2
AA	25MM X 21MM	224-304-480	4 X 2
AB	32.5MM X 25MM	336-475-744	2 X 2

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VARIATION DIMENSIONS ARE IN MILLIMETERS

SYMBOL	DIMENSIONS ARE IN MILLIMETERS			NOTE	DIMENSIONS ARE IN MILLIMETERS			NOTE
	AA				AB			
	MIN	NOM	MAX		MIN	NOM	MAX	
M	21.75 BSC			12	29.20 BSC			12
M1	22.15 BSC			12	31.15 BSC			12
M2	31.80 BSC			12	45.60 BSC			12
M3	30.80 BSC			12	77.50 BSC			12
N1	4 COLUMNS				2 COLUMNS			
N2	2 ROWS				2 ROWS			
N3	8			5	4			5
NOTES	7, 8, 9, 12				7, 8, 9, 12			
REF	5- 426				5- 426			
ISSUE	A				A			

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