

NOTES:

1. ALL DIMENSIONING AND TOLERANCING CONFORM TO ANSI Y14.5-1982.
2. DATUM PLANE $\square-H$ LOCATED AT MOLD PARTING LINE AND COINCIDENT WITH LEAD, WHERE LEAD EXITS PLASTIC BODY AT BOTTOM OF PARTING LINE.
3. DATUMS $\square-A-B$ AND $\square-D$ TO BE DETERMINED AT CENTERLINE BETWEEN LEADS WHERE LEADS EXIT PLASTIC BODY AT DATUM PLANE $\square-H$.
4. TO BE DETERMINED AT SEATING PLANE $\square-C$.
5. DIMENSIONS D1 AND E1 DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE MOLD PROTRUSION IS 0.254 MM ON D1 AND E1 DIMENSIONS.
6. 'N' IS THE TOTAL NUMBER OF TERMINALS.
7. THESE DIMENSIONS TO BE DETERMINED AT DATUM PLANE $\square-H$.
8. THE TOP OF PACKAGE IS SMALLER THAN THE BOTTOM OF PACKAGE BY 0.15 MILLIMETERS, AND THE TOP OF THE PACKAGE WILL NOT OVERHANG THE BOTTOM OF THE PACKAGE.

9. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08mm TOTAL IN EXCESS OF THE b DIMENSION AT MAXIMUM MATERIAL CONDITION. DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OR THE FOOT.
10. CONTROLLING DIMENSION: MILLIMETER.
11. MAXIMUM ALLOWABLE DIE THICKNESS TO BE ASSEMBLED IN THIS PACKAGE FAMILY IS 0.38 MILLIMETERS.
12. THIS OUTLINE CONFORMS TO JEDEC PUBLICATION 95 REGISTRATION MO-136, VARIATION BT.

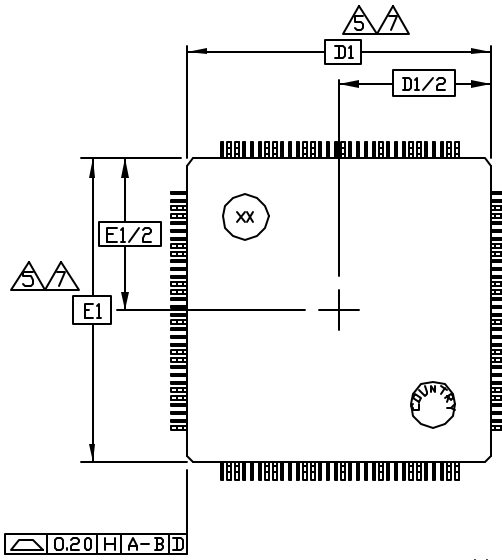
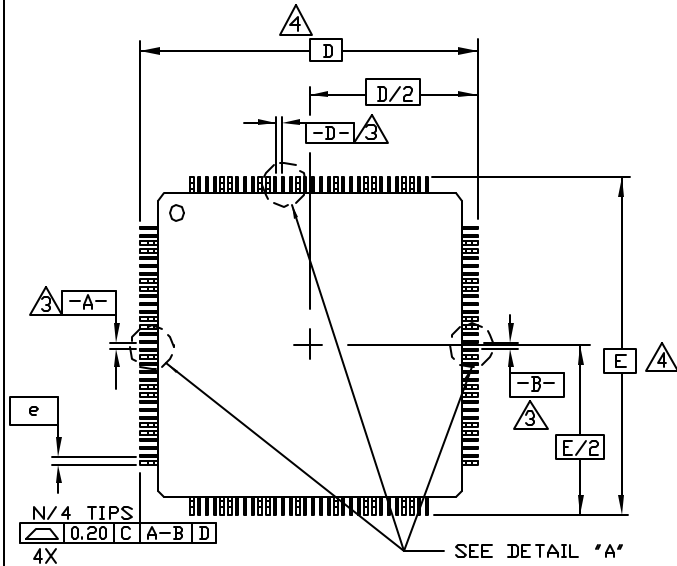
S Y M B O L	(JEDEC VARIATION)			N O T E
	ALL DIMENSIONS IN MILLIMETERS			
	BT			
	MIN.	NOM.	MAX.	
A	\sphericalangle	\sphericalangle	1.60	4 7,8 4 7,8 9
A ₁	0.05	0.10	0.15	
A ₂	1.35	1.40	1.45	
D	22.00 BSC.			
D ₁	20.00 BSC.			
E	22.00 BSC.			
E ₁	20.00 BSC.			
L	0.45	0.60	0.75	
M	0.14	\sphericalangle	\sphericalangle	
N	*128, 144			
e	0.50 BSC.			
b	0.17	0.22	0.27	
b ₁	0.17	0.20	0.23	
ccc	\sphericalangle	\sphericalangle	0.08	
d _{ddd}	\sphericalangle	\sphericalangle	0.08	

* NOTE: THE 128 LEAD IS A COMPLIANT DEPOPULATION OF THE 144 LEAD MO-136 VARIATION BT.

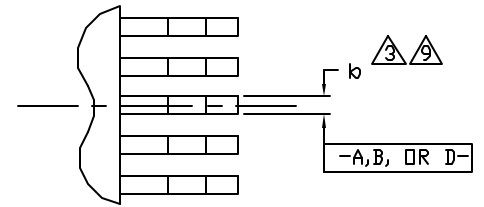
REV	DESCRIPTION	DATE	APPROVED
01	INITIAL RELEASE PER DCN #034741	02/27/1988	Y.K.K.
02	INC. PER DCN #030039	02/27/1988	Y.K.K.
03	INC. PER DCN #036407	02/27/1988	Y.K.K.
04	INC. PER DCN #035778	02/27/1988	Y.K.K.
05	INC. PER DCN #021891	02/27/1988	Y.K.K.
06	INC. PER DCN #021039	02/27/1988	Y.K.K.
07	REVISED PER DCN #021566	02/27/1988	Y.K.K.

TOP VIEW

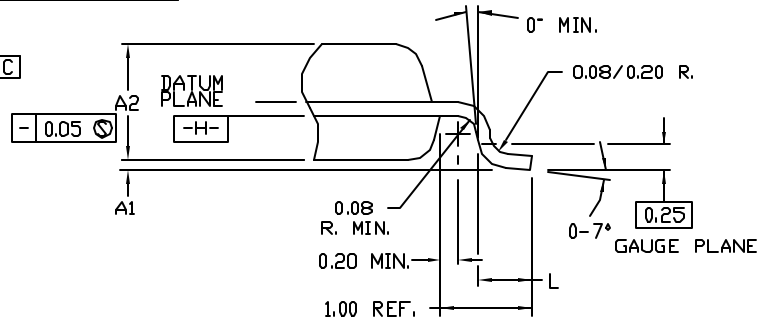
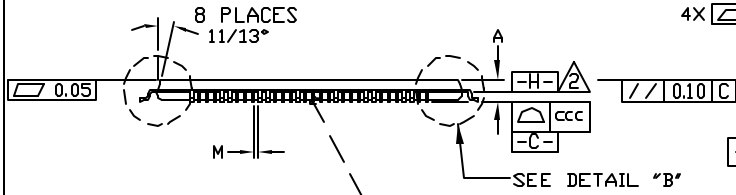
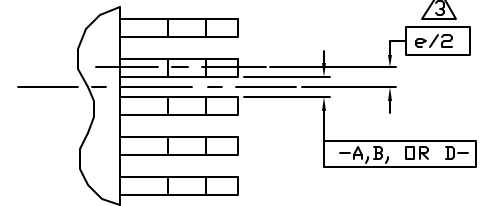
BOTTOM VIEW



ODD LEAD SIDES

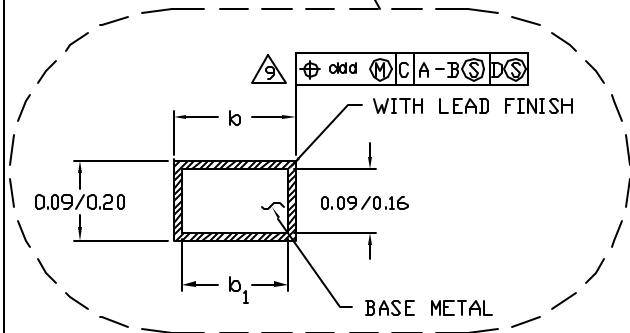


EVEN LEAD SIDES



DETAIL "A"

DETAIL "B"



DESCRIPTION		MATERIAL	PLATE	S.I.D. NO.
DECIMAL XXX±	ANGULAR ±			
PROJECTION XX±				
APPROVALS DRAWN E. PEREZ	DATE 02/27/1988	TITLE QUICKLOGIC		
CHECKED J. DAVIS	02/27/1988	PACKAGE OUTLINE, TQFP, 20X20 MM BODY		
ENG'N M. BIRD	02/27/1988	1.00/0.10 MM FORM, 1.40 MM THICK		
RELEASED YK KANG	02/27/1988	SIZE A1	SCALE 6/1	REV. C
DO NOT SCALE DRAWING				03-016-11
				SHEET 1 of 2