NOTES:

1. ALL DIMENSIONING AND TOLERANCES CONFIRM TO ASME Y14.5-1994.
2. DATUM PLANE H LOCATED AT MOLD PARTING LINE AND COINCIDENT WITH LEAD, WHERE LEAD EXITS PLASTIC BODY AT BOTTOM OF PARTING LINE.
3. DATUMS A-B AND D TO BE DETERMINED AT CENTERLINE BETWEEN LEADS WHERE LEADS EXIT PLASTIC BODY AT DATUM PLANE H
4. TO BE DETERMINED AT SEATING PLANE C
5. DIMENSIONS D1 AND E1 DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE MOLD PROTRUSION IS 0.254 MM PER SIDE. DIMENSION D1 AND E1 INCLUDE MOLD MISMATCH AND ARE DETERMINED AT DATUM PLANE H
6. "N" IS NUMBER OF TERMINALS.
7. PACKAGE TOP DIMENSIONS ARE SMALLER THAN BOTTOM DIMENSIONS BY 0.10 MILLIMETERS. AND TOP OF PACKAGE WILL NOT OVERHANG BOTTOM OF PACKAGE.
8. DIMENSIONS b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMABR PROTRUSION SHALL BE NOT CAUSE THE LEAD WIDTH TO EXCEED THE MAXIMUM b DIMENSION BY MORE THAN 0.08 MM. DAMABR CAN NOT BE LOCATED ON THE LOWER RADIUS OR THE FOOT.
9. ALL DIMENSIONS ARE IN MILLIMETERS.
10. THE EXPOSED PAD IS COINCIDENT WITH THE TOP OR BOTTOM SIDE OF THE PACKAGE AND NOT ALLOWED TO PROTRUDE BEYOND THAT SURFACE.
11. THESE DIMENSIONS APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.10 MM AND 0.25 MM FROM THE LEAD TIP.
12. THIS DRAWING CONFORMS TO JEDEC REGISTERED OUTLINE MS-026-C, VARIATION BFB AND BFC. BUT THE EXPOSED PAD DIMENSION WAS NOT SPECIFIED ON JEDEC.
13. A1 IS DEFINED AS THE DISTANCE FROM THE SEATING PLANE TO THE LOWEST POINT OF THE PACKAGE BODY.
14. DIMENSION D2 AND E2 REPRESENT THE SIZE OF THE EXPOSED PAD. THE ACTUAL DIMENSIONS ARE SPECIFIED ON THE BONDING DIAGRAM, AND IS DEPENDENT ON THE DIE SIZE.
15. EXPOSED PAD SHALL BE COPLANAR WITH BOTTOM OF PACKAGE WITHIN 0.05.
16. CORNER CHAMFER OF EXPOSED DIE PAD SHALL BE WITHIN 0.30 MM.

SYMBOL	(JEDEC VARIATION) ALL DIMENSIONS IN MILLIMETERS			NOTE
	BFB			
	MIN.	NOM.	MAX.	
A	≁	≁	1.60	
A_1	0.05	≁	0.15	13
A_2	1.35	1.40	1.45	
D	22.00 BSC.			4
D_1	20.00 BSC.			7,8
E	22.00 BSC.			4
E_1	20.00 BSC.			7,8
L	0.45	0.60	0.75	
N	*128, 144			
e	0.50 BSC.			
b	0.17	0.22	0.27	9
b1	0.17	0.20	0.23	
ccc	≁	≁	0.08	
ddd	≁	≁	0.08	

SYMBOL	(JEDEC VARIATION) ALL DIMENSIONS IN MILLIMETERS			NOTE
	BFC			
	MIN.	NOM.	MAX.	
A	≁	≁	1.60	
A_1	0.05	≁	0.15	13
A_2	1.35	1.40	1.45	
D	22.00 BSC.			4
D_1	20.00 BSC.			7,8
E	22.00 BSC.			4
E_1	20.00 BSC.			7,8
L	0.45	0.60	0.75	
N	176 LD			
e	0.40 BSC.			
b	0.13	0.18	0.23	9
b1	0.13	0.16	0.19	
ccc	≁	≁	0.08	
ddd	≁	≁	0.07	

* NOTE: THE 128 LEAD IS A COMPLIANT DEPOPULATION
OF THE 144 LEAD MS-026 VARIATION BFA.

Amkor Technology, Inc.
Chandler, Arizona, USA
Anam Semiconductor, Inc.,
Seoul, Korea
Amkor Technology Philippines, Inc.
Manila, Philippines

TITLE
PACKAGE OUTLINE, MATRIX, LQFP,
20 X 20 mm BODY, 1.00/0.10 mm FORM,
1.40 mm THICK (OPTIONAL ePAD)

SIZE	DWG NUMBER	REV
A3	32778	09

SCALE		SHEET
6:1	PRINTING IS SCALED TO FIT DO NOT SCALE DRAWING	2 OF 2