

- NOTES:
1. ALL DIMENSIONS AND TOLERANCES REFER TO ANS Y14.2-1994.
  2. WITH LEAD, WHERE LEAD EXITS PLASTIC BODY AT BOTTOM OF PARTING LINE, DIMENSIONS A2 AND D2 TO BE DETERMINED AT CENTERLINE BETWEEN LEADS. DIMENSIONS A1 AND E1 DO NOT INCLUDE HOLD PROTRUSION.
  3. DIMENSIONS B1 AND E1 DO NOT INCLUDE HOLD PROTRUSION.
  4. ALLOWABLE HOLD PROTRUSION IS 0.254 MM PER SIDE.
  5. DIMENSION D1 INCLUDE HOLD PROTRUSION AND ARE DETERMINED AT DATUM PLANE D1.
  6. N<sup>o</sup> IS NUMBER OF TERMINALS.
  7. DIMENSIONS B1 AND E1 SMALLER THAN BOTTOM DIMENSIONS BY 0.10 MILLIMETERS AND TOP OF PACKAGE WILL NOT DEFORM.
  8. DIMENSIONS B1 AND E1 PROTRUSION SHALL BE NEARLY EQUAL TO EXCEED THE MAXIMUM b DIMENSION BY MORE THAN 0.254 MM. DIMENSION b CAN NOT BE LOCATED ON THE LOWER RADII OF 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 PLAT SECTION OF THE LEAD BETWEEN THE TRAVELING CHAMFERS TO JEDEC REGISTERED OUTLINE NS-066-C. VARIATION B1B AND B1C.
12. DIMENSION B1B 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, 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 0.20 MM.

(JEDEC VARIATION)  
ALL DIMENSIONS IN MILLIMETERS

SYMBOL	BFB			N
	MIN.	NDM.	MAX.	
A	0.05	0.15	1.60	13
A1	0.05	0.15	0.15	13
A2	1.35	1.40	1.45	4
D	22.00	BSC.		4
D1	20.00	BSC.		7.8
E	22.00	BSC.		4
E1	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	0.17	0.20	0.08	
ddd	0.17	0.20	0.08	

(JEDEC VARIATION)  
ALL DIMENSIONS IN MILLIMETERS

SYMBOL	BFC			N
	MIN.	NDM.	MAX.	
A	0.05	0.15	1.60	13
A1	0.05	0.15	0.15	13
A2	1.35	1.40	1.45	4
D	22.00	BSC.		4
D1	20.00	BSC.		7.8
E	22.00	BSC.		4
E1	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	0.13	0.16	0.08	
ddd	0.13	0.16	0.07	

\* NOTE: THE 128 LEAD IS A COMPLIANT DEREGULATION OF THE 144 LEAD NS-066 VARIATION BFA.

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PACKAGE OUTLINE: MATRIX, LQFP  
 20 X 20 mm BODY (20.0/0.10 mm FORM,  
 1.40 mm THICK (OPTIONAL, 0.75))

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PRINTING IS SCALED TO FIT  
 DO NOT SCALE DRAWING

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