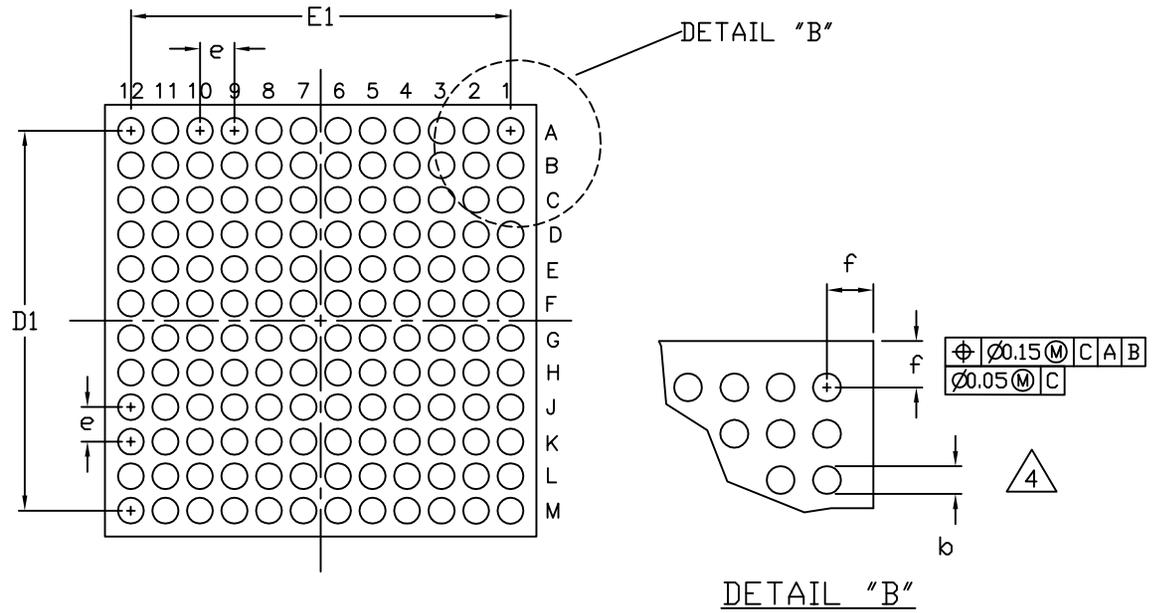
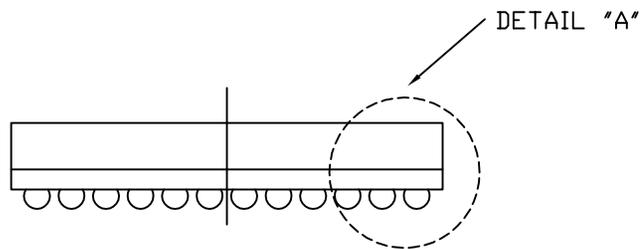


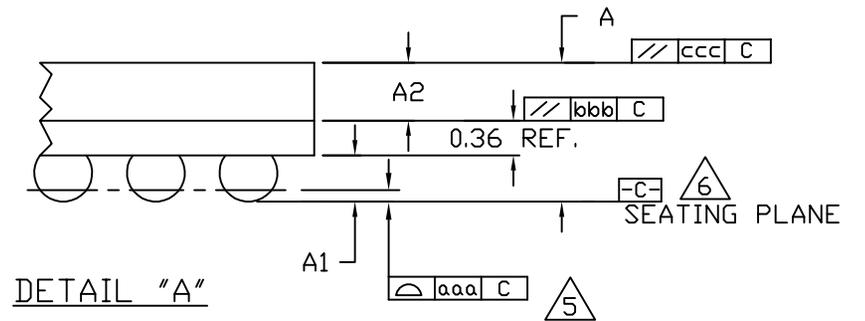
TOP VIEW



BOTTOM VIEW



SIDE VIEW



DETAIL "A"



TITLE:
PACKAGE OUTLINE,
144L CSBGA, 10x10x1.4mm

APPROVAL
SCOTT SCHROEDER
01/29/13

DOCUMENT CONTROL NO.
21-0169

REV. F 1/2

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. 'e' REPRESENTS THE BASIC SOLDER BALL GRID PITCH.
3. 'M' REPRESENTS THE BASIC SOLDER BALL MATRIX SIZE AND SYMBOL 'N' IS THE NUMBER OF BALLS AFTER DEPOPULATING.
4. 'b' IS MEASURABLE AT THE MAXIMUM SOLDER BALL DIAMETER AFTER REFLOW PARALLEL TO PRIMARY DATUM [-C-].
5. DIMENSION 'aaa' IS MEASURED PARALLEL TO PRIMARY DATUM [-C-].
6. PRIMARY DATUM [-C-] AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
7. PACKAGE SURFACE SHALL BE MATTE FINISH.
8. SUBSTRATE MATERIAL BASE IS BT RESIN.
9. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
10. MARKING SHOWN IS FOR PACKAGE ORIENTATION REFERENCE ONLY.
11. DRAWING CONFORMS TO JEDEC MO-205.
12. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND PbfREE (+) PKGCODES.

DIMENSIONAL REFERENCES			
REF.	MIN.	NOM.	MAX.
A	1.25	1.40	1.50
A1	0.25	0.34	0.37
A2	0.70 BSC		
D	9.80	10.00	10.20
D1	8.80 BSC		
E	9.80	10.00	10.20
E1	8.80 BSC		
b	0.40	0.45	0.50
aaa	--	--	0.12
bbb	--	--	0.10
ccc	--	--	0.10
e	0.80 BSC		
f	0.50	0.60	0.70
M	12		
N	144		
PKGCODES: X14400-1; X14400-2; X14400-4; X14400-5			



TITLE:
PACKAGE OUTLINE,
144L CSBGA, 10x10x1.4mm

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