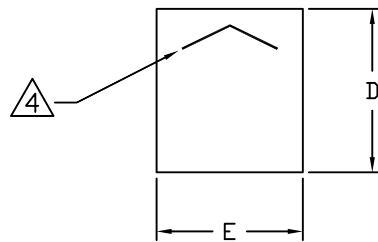
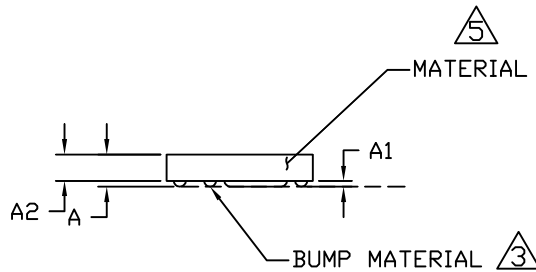
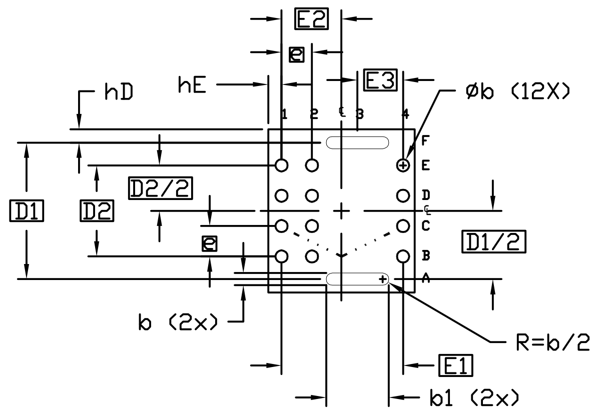


TOP VIEW



SIDE VIEW



BOTTOM VIEW

SYMBOL	MIN.	NOM.	MAX.	NOTE
A	0.45	0.53	0.59	
A1	0.075	0.100	0.127	
A2	0.38	0.43	0.46	BSC 10
D	2.64	2.69	2.74	
D1		2.25		
D2		1.50		
hD		0.20		
E	2.36	2.41	2.46	
E1		2.00		
E2		0.99		
E3		0.75		
hE		0.20		
e		0.50		
b	0.19	0.20	0.24	
b1	0.99	1.03	1.07	

NOTES:
1. DIMENSIONS ARE IN MILLIMETERS.
2. MATERIAL MUST COMPLY WITH BANNED AND RESTRICTED SUBSTANCES SPEC # 10-0131.
3. BUMP MATERIAL: 95 Pb / 5 Sn.
4. LASER MARK INDICATING END OF PACKAGE CONTAINING BUMP ROW A.
5. BULK SILICON EXPOSED ON FOUR SIDES AND TOP.
6. UNDERFILL REQUIRED FOR RELIABILITY OF SOLDER JOINT ON FR4 SUSTRATE
7. RECOMMENDED SUBSTRATE LAND PATTERN (NSMD PADS): LAND PAD Ø0.23; SOLDER MASK APERTURE Ø0.33.
8. SUGGESTED ASSEMBLY SOLDER PASTE APERTURE: Ø0.30.
9. ELECTRICAL NODES -- SEE PRODUCT DEVICE DATA SHEET OR PROBE DOCUMENT
10. BSC = BACK SIDE COATING AVAILABLE (NO CHANGE IN A2)
11. BRIGHT FIELD ILLUMINATION IS RECOMMENDED FOR BSC WAFER LASER SCRIBE
12. ALL DIMENSIONS APPLY TO BOTH LEADED (-) AND PbFREE (+) PKG. CODES.
13. PACKAGE CODES: BF1223-2

TITLE:
PACKAGE OUTLINE, 12 BALLS FLIP CHIP, 2.69x2.41x0.53mm, 0.50 mm PITCH

APPROVAL	DOCUMENT CONTROL NO.	REV.	
	21-0280	B	1/1

-DRAWING NOT TO SCALE-