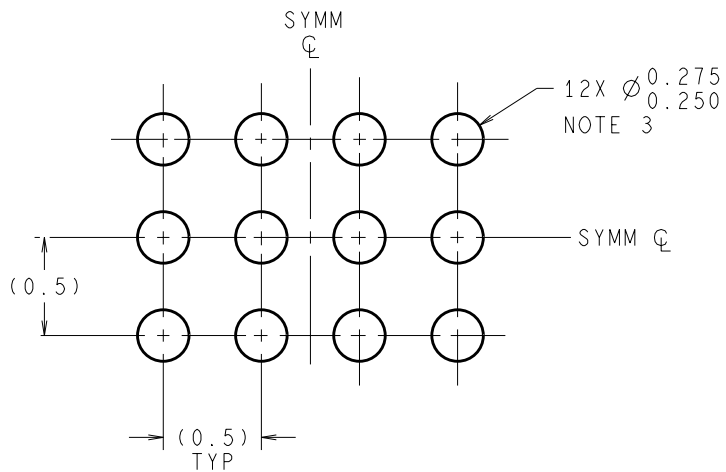
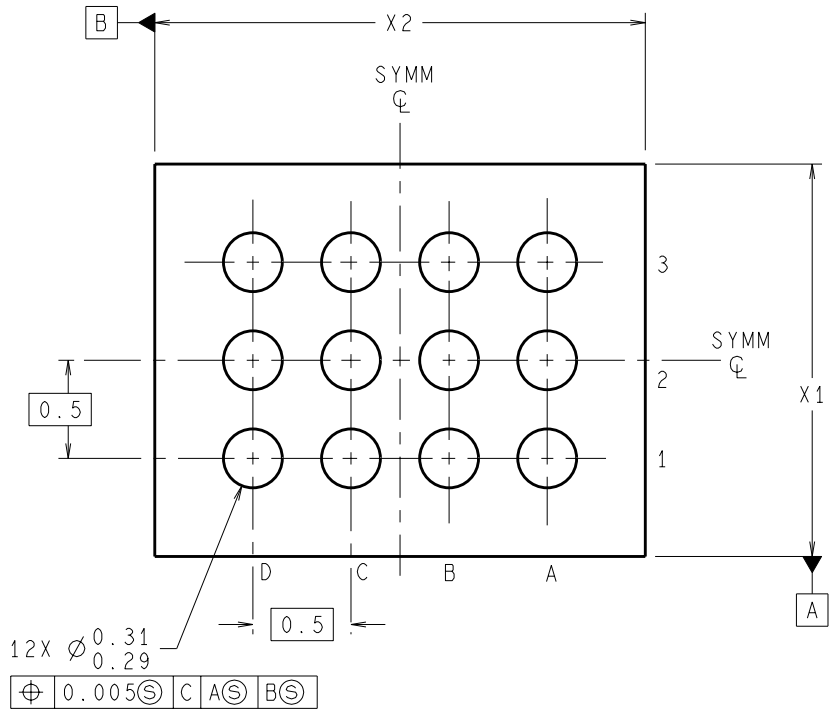
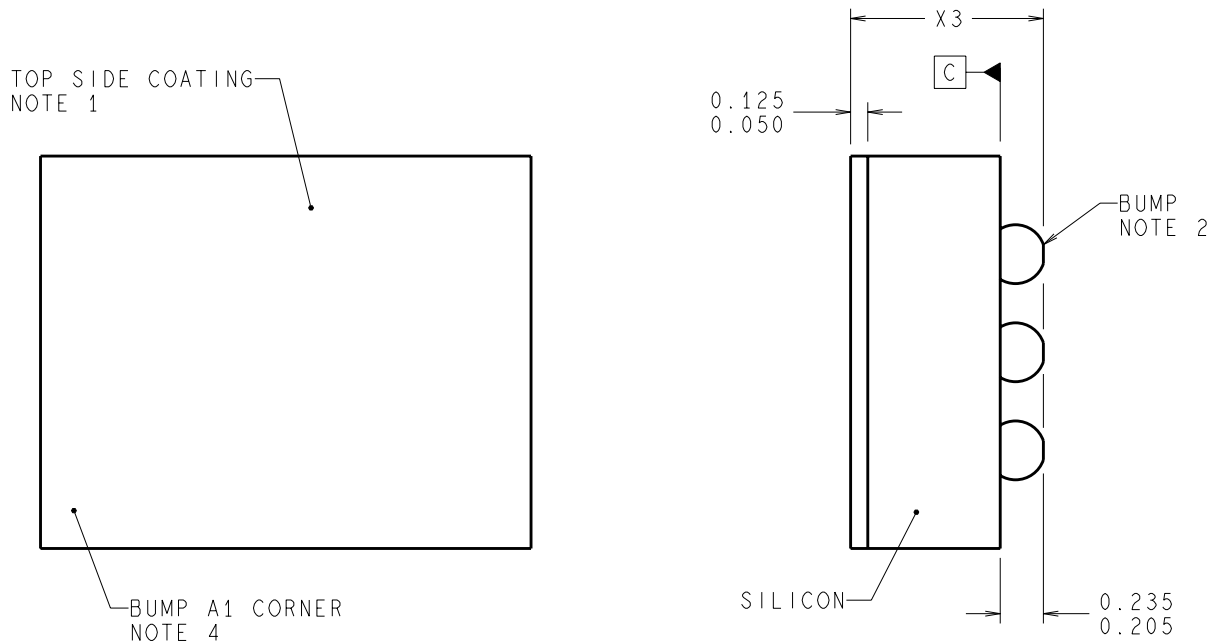


REVISIONS				
LTR	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	294	04/18/2001	MS/VP
B	CHANGE TO AREA ARRAY DESIGN & UPDATE TITLE.	386	07/30/2001	MS/VP
B	CHANGE BUMPS NUMBERING ORDER PER JEDEC; JEDEC REGISTRATION WAS 207 & VARIATION WAS CA-y. UPDATE NOTE 4.	506	02/01/2002	MS/VP



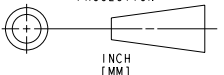
DIMENSIONS ARE IN MILLIMETERS

LAND PATTERN RECOMMENDATION



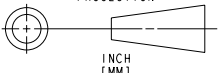
NOTES: UNLESS OTHERWISE SPECIFIED

- EPOXY COATING.
- 63 Sn / 37 Pb EUTECTIC BUMP.
- RECOMMEND NON-SOLDER MASK DEFINED LANDING PAD.
- PIN A1 IS ESTABLISHED BY LOWER LEFT CORNER WITH RESPECT TO TEXT ORIENTATION.
- XXX IN DRAWING NUMBER REPRESENTS PACKAGE SIZE VARIATION WHERE X1 IS PACKAGE WIDTH, X2 IS PACKAGE LENGTH AND X3 IS PACKAGE HEIGHT (SEE TABLE, SHEET 2).
EXAMPLE: BLA12EFB HAS WIDTH=1615, LENGTH=2123, HEIGHT=945
- REFERENCE JEDEC REGISTRATION MO-211, VARIATION BD.

APPROVALS		DATE		 <i>National Semiconductor</i> 2900 Semiconductor Dr., Santa Clara, CA 95052-8090	
DRAWN	MARTA SUCHY		04/18/2001		
DFTG. CHK.	THANH LEQUANG		02/01/2002	MICRO SMD, 12 BUMP(LARGE), AREA ARRAY, 0.5mm PITCH	
ENGR. CHK.	VIRAJ PATWARDHAN		02/01/2002		
		SCALE	SIZE	DRAWING NUMBER	REV
		N/A	C	(SC)MKT-BLA12XXX	C
DO NOT SCALE DRAWING				SHEET 1 of 2	

REVISIONS				
LTR	DESCRIPTION	E.C.N.	DATE	BY/APP'D
	SEE SHEET 1			

PACKAGE DIMENSIONS					
X1 DESIGNATOR	X1 PACKAGE WIDTH ±30μm	X2 DESIGNATOR	X2 PACKAGE LENGTH ±30μm	X3 DESIGNATOR	X3 PACKAGE HEIGHT ±100μm
A	1 514	A	1 996	A	7 95
B	1 539	B	2 022	B	9 45
C	1 565	C	2 047	C	9 95
D	1 590	D	2 073		
E	1 615	E	2 098		
F	1 641	F	2 123		
G	1 666	G	2 149		
H	1 692	H	2 174		
J	1 717	J	2 200		
K	1 742	K	2 225		
L	1 768	L	2 250		
M	1 793	M	2 276		
N	1 819	N	2 301		
P	1 844	P	2 327		
Q	1 869	Q	2 352		
R	1 875	R	2 377		
S	1 920	S	2 403		
T	1 946	T	2 428		
U	1 971	U	2 454		
V	1 996	V	2 479		
W	2 022				
X	2 047				

APPROVALS		DATE		 <i>National Semiconductor</i> 2900 Semiconductor Dr., Santa Clara, CA 95052-8090 MICRO SMD, 12 BUMP(LARGE), AREA ARRAY, 0.5mm PITCH			
DRAWN MARTA SUCHY		04/18/2001					
DFTG. CHK. THANH LEQUANG		02/01/2002					
ENGR. CHK. VIRAJ PATWARDHAN		02/01/2002					
		SCALE N/A	SIZE C	DRAWING NUMBER (SC)MKT-BLA12XXX		REV C	
DO NOT SCALE DRAWING				SHEET 2 of 2			