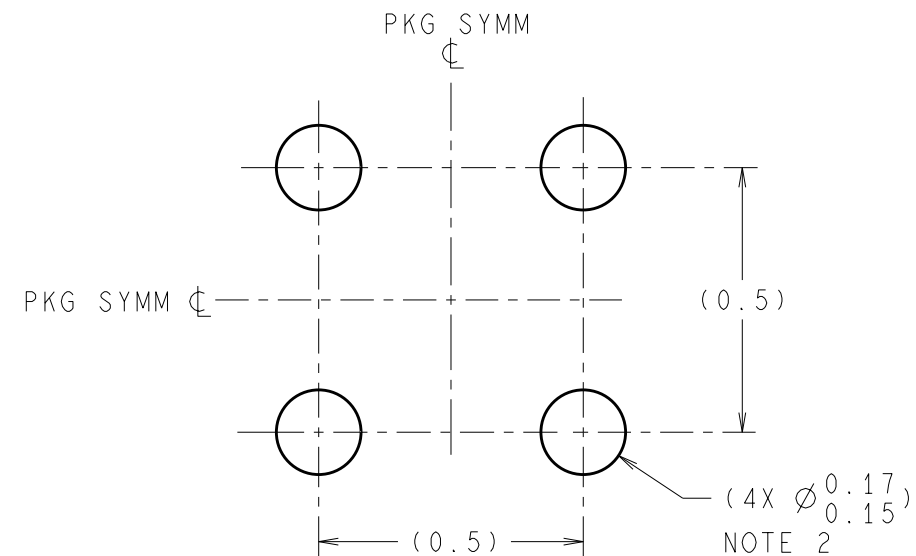
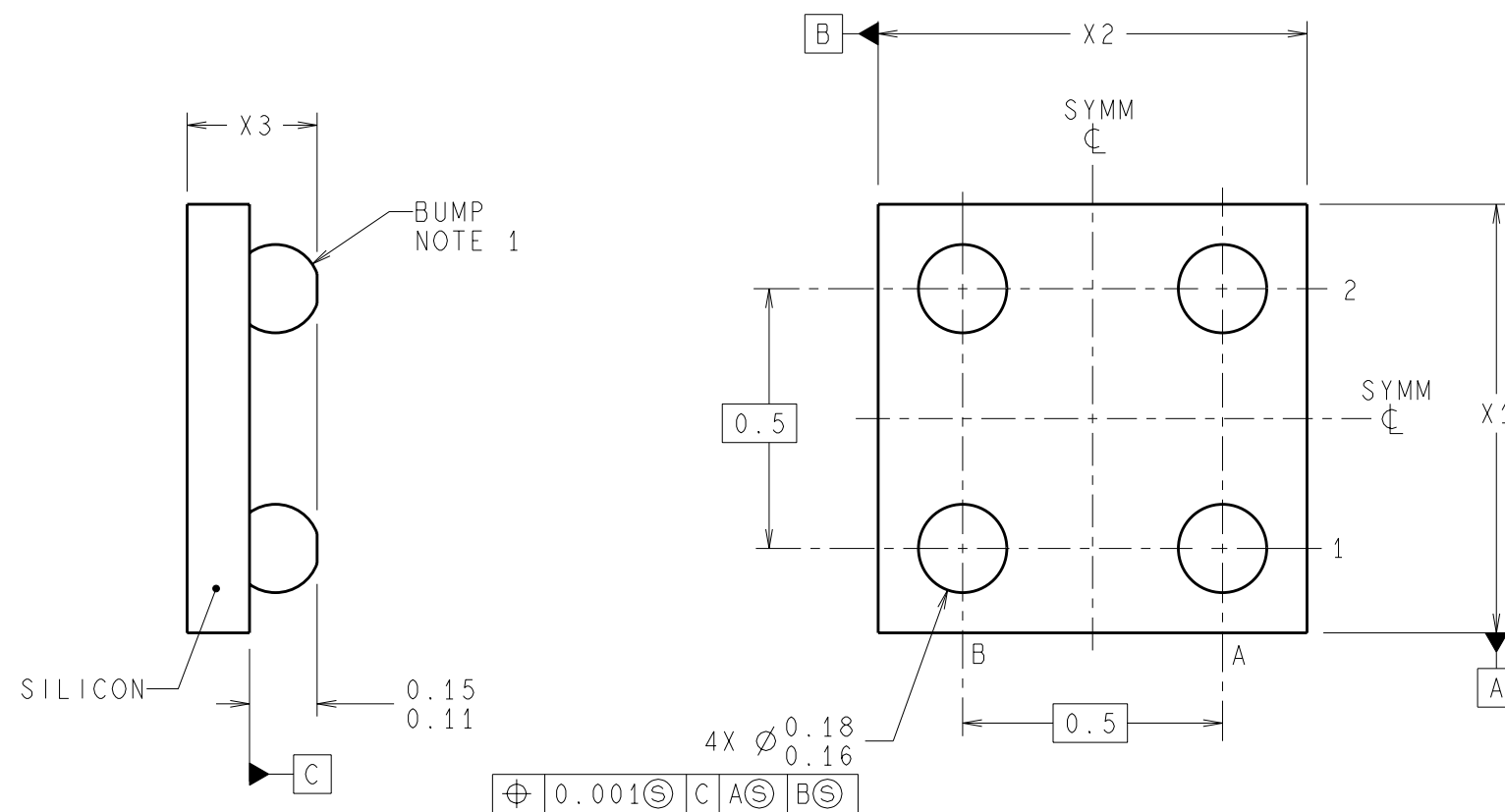
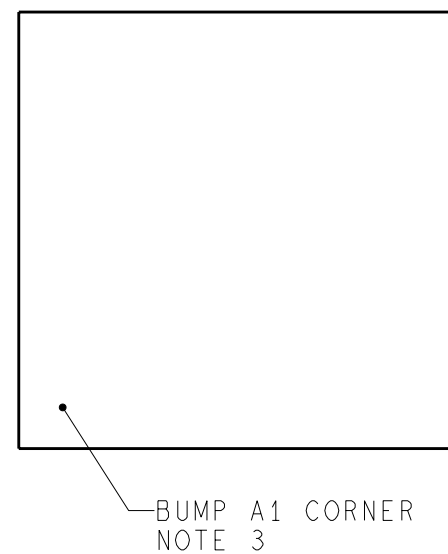


REVISIONS				
REV	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	1364	02/03/2004	MS/VP
B	REMOVE TOP SIDE COATING, ITS DIM & NOTE 1; RENUMBER NOTES.	1391	02/17/2004	MS/HN
C	CHANGE X3 PACKAGE HEIGHT TOLERANCE IN PACKAGE DIMENSION TABLE ON SHEET 2	3125	08/12/2010	AF/SL/CSL



DIMENSIONS ARE IN MILLIMETERS
DIMENSIONS IN () FOR REFERENCE ONLY

LAND PATTERN RECOMMENDATION




NOTES: UNLESS OTHERWISE SPECIFIED

- FOR SOLDER BUMP COMPOSITION, SEE "SOLDER INFORMATION" IN THE PACKAGING SECTION OF THE NATIONAL SEMICONDUCTOR WEB PAGE (www.national.com).
- 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).
- REFERENCE JEDEC REGISTRATION MO-211, VARIATION CA.

APPROVALS		DATE	 2900 Semiconductor Dr., Santa Clara, CA 95052-8090	EXTREME THIN MICRO SMD, 4 BUMP, 0.5mm PITCH
DRAWN	MARTA SUCHY	02/03/2004		
DFTG. CHK.	SUEANN LIM	08/12/2010		
ENGR. CHK.	CS LEE	08/12/2010		
PROJECTION	SCALE	SIZE	DRAWING NUMBER	REV
 MM	NTS	B	(SC)MKT-XPA04XXX	C
FORMERLY: N/A			SHEET 1 of 2	

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

PACKAGE DIMENSIONS					
X1 DESIGNATOR	X1 PACKAGE WIDTH $\pm 30\mu\text{m}$	X2 DESIGNATOR	X2 PACKAGE LENGTH $\pm 30\mu\text{m}$	X3 DESIGNATOR	X3 PACKAGE HEIGHT $\pm 45\mu\text{m}$
A	777	A	777	A	250
B	803	B	803		
C	828	C	828		
D	853	D	853		
E	879	E	879		
F	904	F	904		
G	930	G	930		
H	955	H	955		
J	980	J	980		
K	1006	K	1006		
L	1031	L	1031		
M	1057	M	1057		
N	1082	N	1082		
P	1107	P	1107		
Q	1133	Q	1133		
R	1158	R	1158		
S	1184	S	1184		
T	1209	T	1209		
U	1234	U	1234		
V	1260	V	1260		
W	1285	W	1285		
X	1311	X	1311		
Y	1336	Y	1336		
2	1361	2	1361		
3	1387	3	1387		
4	1412	4	1412		
5	1438	5	1438		
6	1463	6	1463		

APPROVALS		DATE	 2900 Semiconductor Dr., Santa Clara, CA 95052-8090	EXTREME THIN MICRO SMD, 4 BUMP, 0.5mm PITCH	
DRAWN	MARTA SUCHY	02/03/2004			
DFTG. CHK.	SUEANN LIM	08/12/2010			
ENGR. CHK.	CS LEE	08/12/2010			
 PROJECTION MM		SCALE	SIZE	DRAWING NUMBER	REV
		NTS	B	(SC)MKT-XPA04XXX	C
FORMERLY: N/A		SHEET 2 of 2			