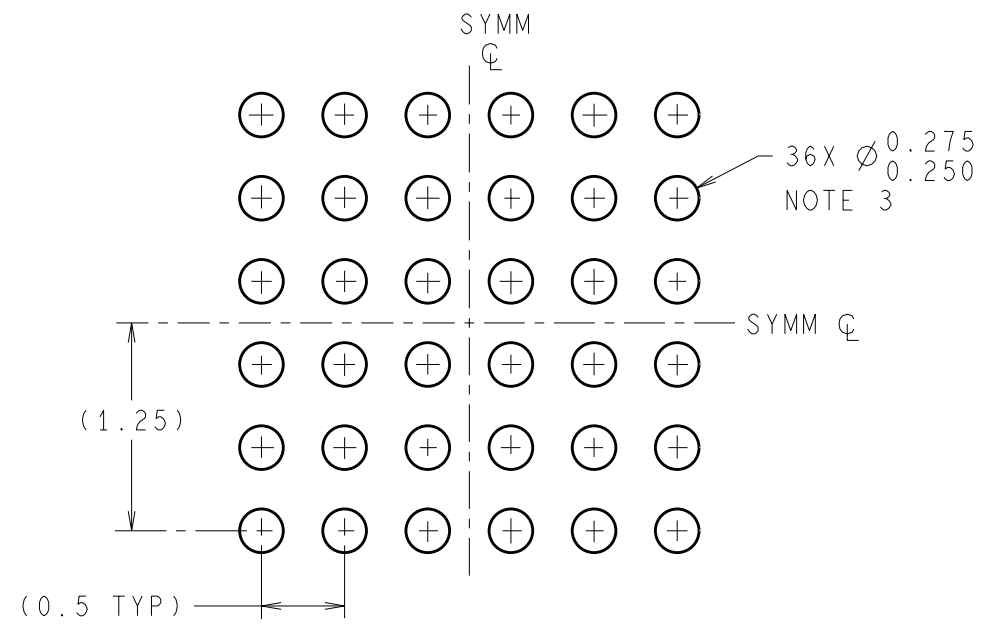
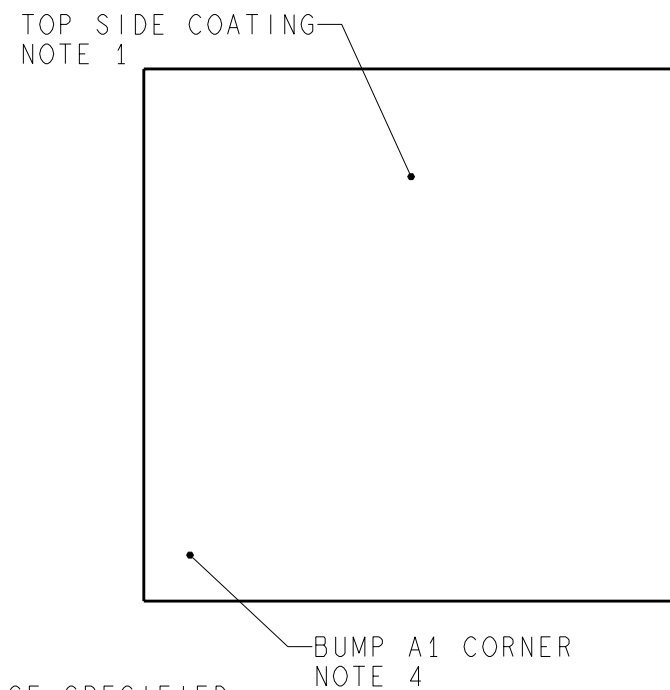


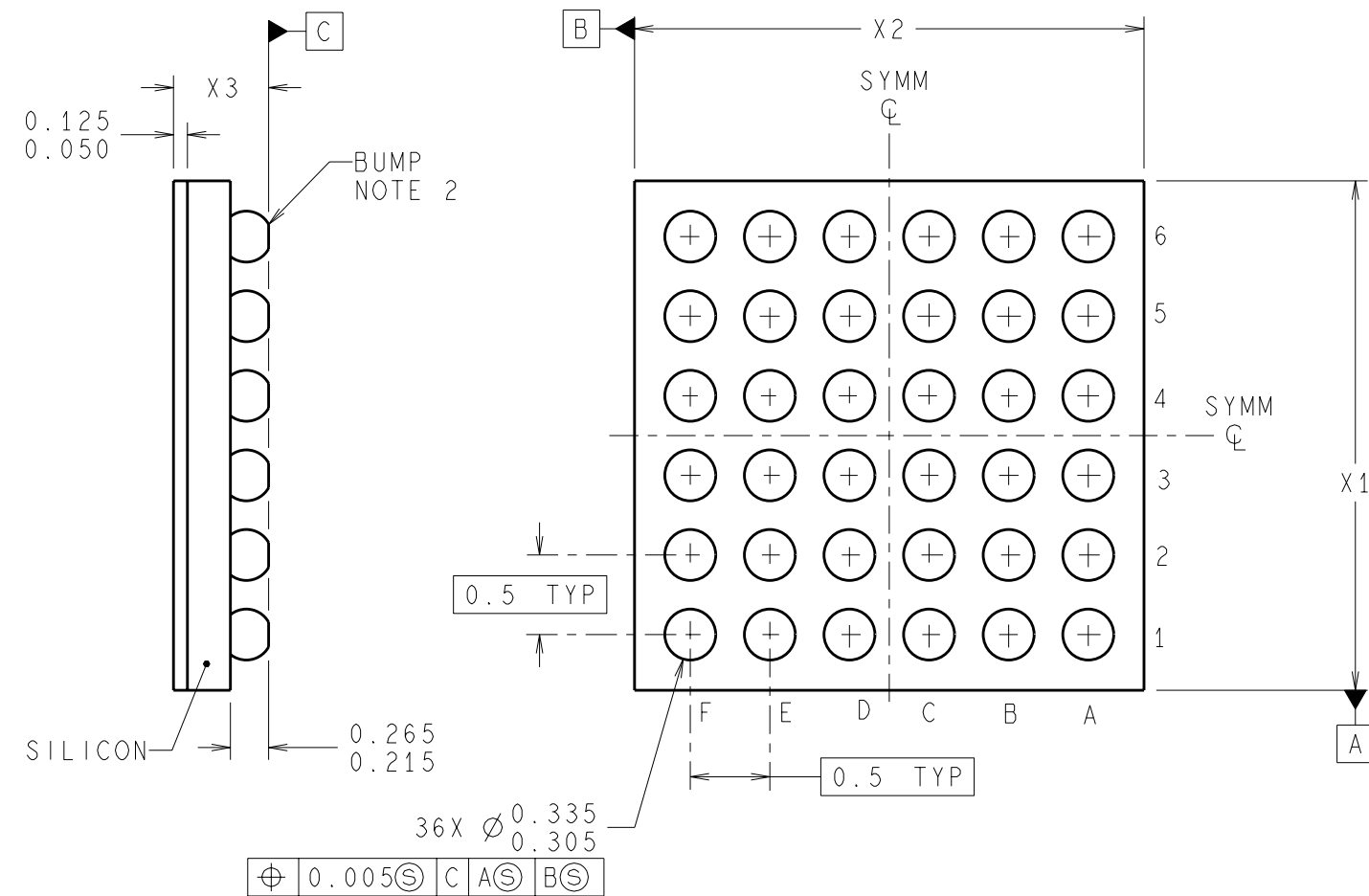
REVISIONS				
REV	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	590	02/26/2002	MS/VP
B	DIM 0.265/ 0.215 WAS 0.235/ 0.205; DIM 0.125/ 0.050 WAS 0.075/ 0.050; REVISE NOTE 2; ADD DIM VALUES N TO V TO COLUMN X1 & X2 ON SHT 2.	855	02/13/2003	MS/HN
C	DIM 0.335/0.305 WAS 0.31/0.29	1306	12/10/2003	MS/HN
D	ADD Z WITH PKG WIDTH 2949 & 1 WITH PKG WIDTH 2975 BEFORE A IN X1 & X2 COLUMN; UPDATE DATUM C LOCATION.	1769	05/03/2005	MS/VP



LAND PATTERN RECOMMENDATION



DIMENSIONS ARE IN MILLIMETERS
DIMENSIONS IN () FOR REFERENCE ONLY





NOTES: UNLESS OTHERWISE SPECIFIED

1. EPOXY COATING.
2. FOR SOLDER BUMP COMPOSITION, SEE "SOLDER INFORMATION" IN THE PACKAGING SECTION OF THE NATIONAL SEMICONDUCTOR WEB PAGE (www.national.com).
3. RECOMMEND NON-SOLDER MASK DEFINED LANDING PAD.
4. PIN A1 IS ESTABLISHED BY LOWER LEFT CORNER WITH RESPECT TO TEXT ORIENTATION.
5. 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).
6. REFERENCE JEDEC REGISTRATION MO-211, VARIATION DK.

APPROVALS		DATE	 2900 Semiconductor Dr., Santa Clara, CA 95052-8090	THIN MICRO SMD, 36 BUMP(LARGE), 0.5mm PITCH
DRAWN	MARTA SUCHY	02/26/2002		
DFTG. CHK.	THANH LEQUANG	05/03/2005		
ENGR. CHK.	VIRAJ PATWARDHAN	05/03/2005		
PROJECTION MM			SCALE NTS	SIZE B
			DRAWING NUMBER (SC)MKT-TLA36XXX	REV D
			FORMERLY: N/A	SHEET 1 of 2

REVISIONS				
REV	DESCRIPTION	E.C.N.	DATE	BY/APP'D
1	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 $\pm 75 \mu\text{m}$
Z	2949	Z	2949	A	600
1	2975	1	2975		
A	3000	A	3000		
B	3026	B	3026		
C	3051	C	3051		
D	3077	D	3077		
E	3102	E	3102		
F	3128	F	3128		
G	3153	G	3153		
H	3179	H	3179		
J	3204	J	3204		
K	3230	K	3230		
L	3255	L	3255		
M	3281	M	3281		
N	3306	N	3306		
O	3332	O	3332		
P	3357	P	3357		
Q	3383	Q	3383		
R	3408	R	3408		
S	3434	S	3434		
T	3459	T	3459		
U	3485	U	3485		
V	3510	V	3510		

APPROVALS		DATE	 National Semiconductor <small>2900 Semiconductor Dr., Santa Clara, CA 95052-8090</small>		
DRAWN	MARTA SUCHY	02/26/2002			
DFTG. CHK.	THANH LEQUANG	05/03/2005			
ENGR. CHK.	VIRAJ PATWARDHAN	05/03/2005			
 PROJECTION MM		SCALE	SIZE	DRAWING NUMBER	REV
		NTS	B	(SC)MKT-TLA36XXX	D
		FORMERLY: N/A		SHEET 2 of 2	

THIN MICRO SMD,
36 BUMP(LARGE),
0.5mm PITCH