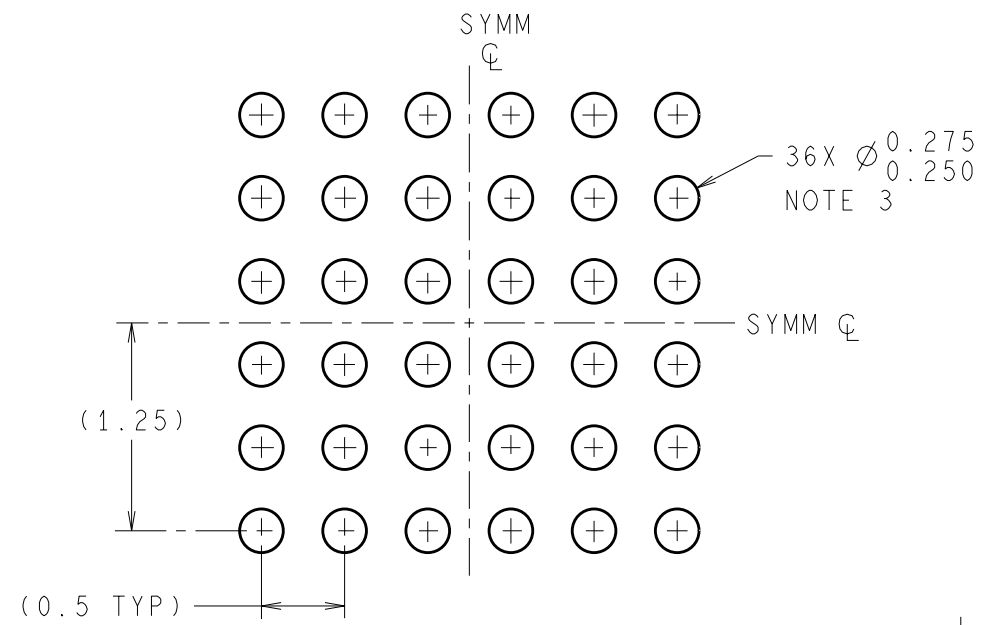
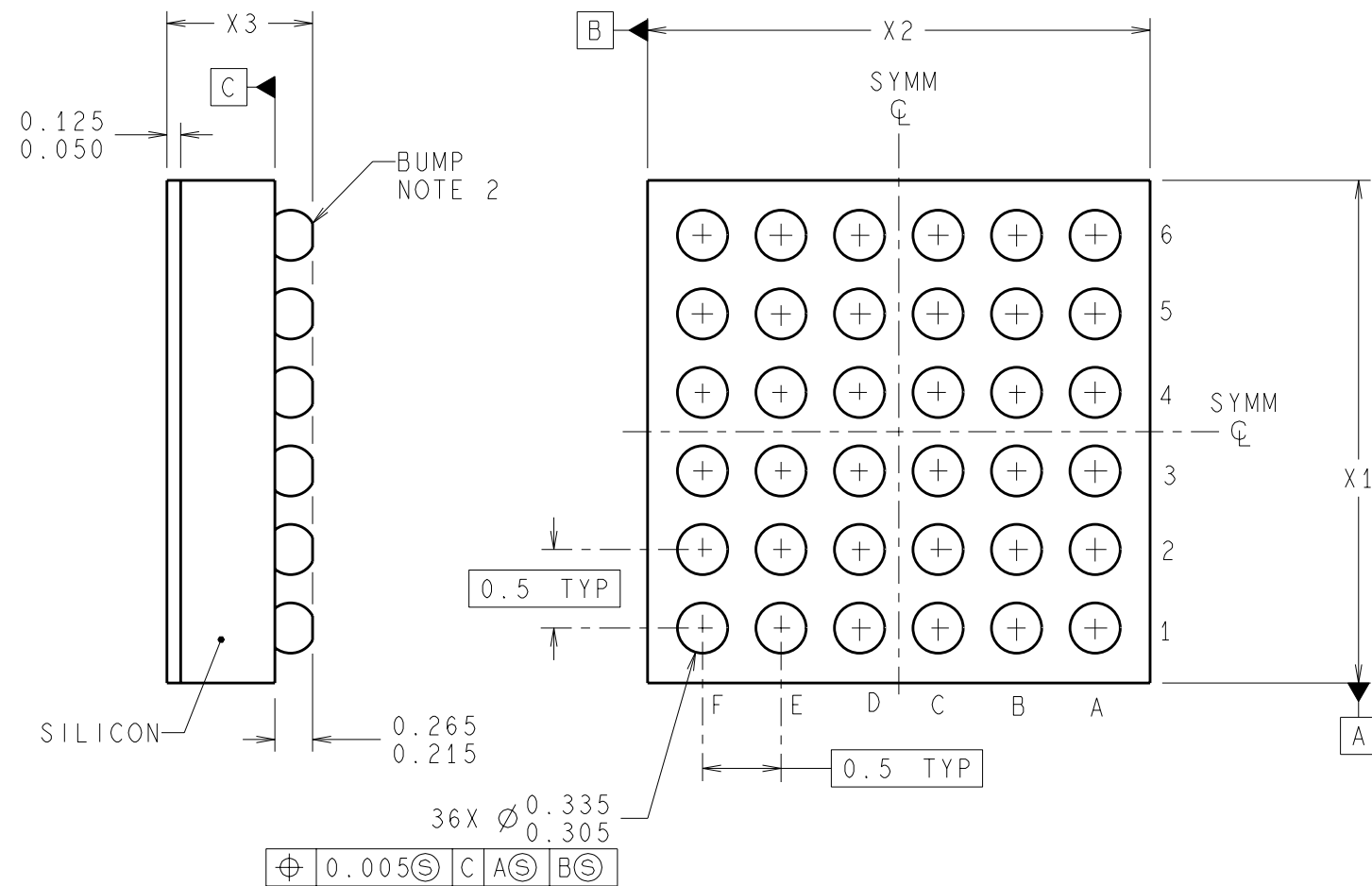
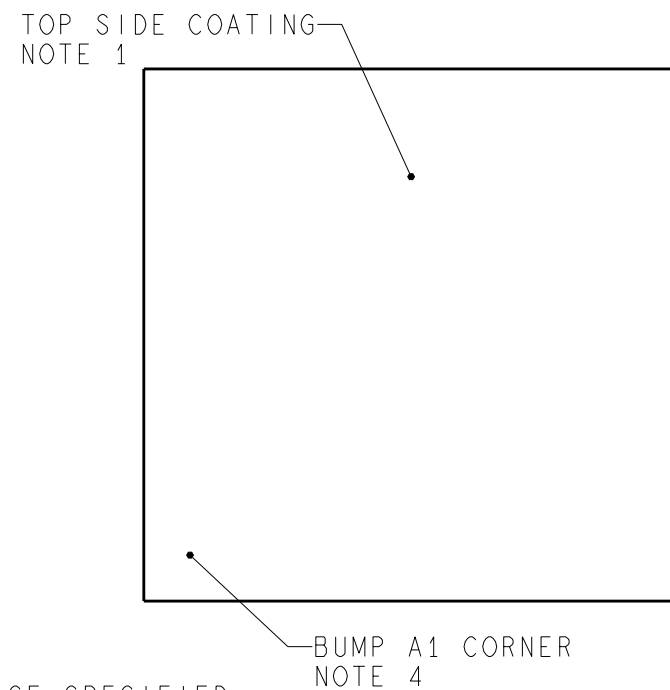


REVISIONS				
REV	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	590	02/26/2002	MS/VP
B	DIM 0.265/ 0.215 WAS 0.235/ 0.205; DIM 0.125/ 0.050 WAS 0.075/ 0.050; REVISE NOTE 2; ADD DIM VALUES N TO V TO COLUMN X1 & X2 ON SHT 2.	855	02/13/2003	MS/HN
C	DIM 0.335/0.305 WAS 0.31/0.29	1306	12/10/2003	MS/HN



**DIMENSIONS ARE IN MILLIMETERS**  
DIMENSIONS IN ( ) FOR REFERENCE ONLY

**LAND PATTERN RECOMMENDATION**





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](http://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	 National Semiconductor 2900 Semiconductor Dr., Santa Clara, CA 95052-8090
DRAWN	MARTA SUCHY	02/26/2002	
DFTG. CHK.	THANH LEQUANG	12/10/2003	
ENGR. CHK.	HAU NGUYEN	12/10/2003	
 PROJECTION MM			THIN MICRO SMD, 36 BUMP(LARGE), 0.5mm PITCH
SCALE	SIZE	DRAWING NUMBER	REV
NTS	B	(SC)MKT-TLA36XXX	C
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 $\pm 75 \mu\text{m}$
A	3000	A	3000	A	600
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	 <b>National Semiconductor</b> <small>2900 Semiconductor Dr., Santa Clara, CA 95052-8090</small>	<b>THIN MICRO SMD,  36 BUMP(LARGE),  0.5mm PITCH</b>
DRAWN <b>MARTA SUCHY</b>	02/26/2002		
DFTG. CHK. <b>THANH LEQUANG</b>	12/10/2003		
ENGR. CHK. <b>HAU NGUYEN</b>	12/10/2003		
PROJECTION	SCALE	SIZE	DRAWING NUMBER
	NTS	B	(SC)MKT-TLA36XXX
MM	FORMERLY: N/A		REV C