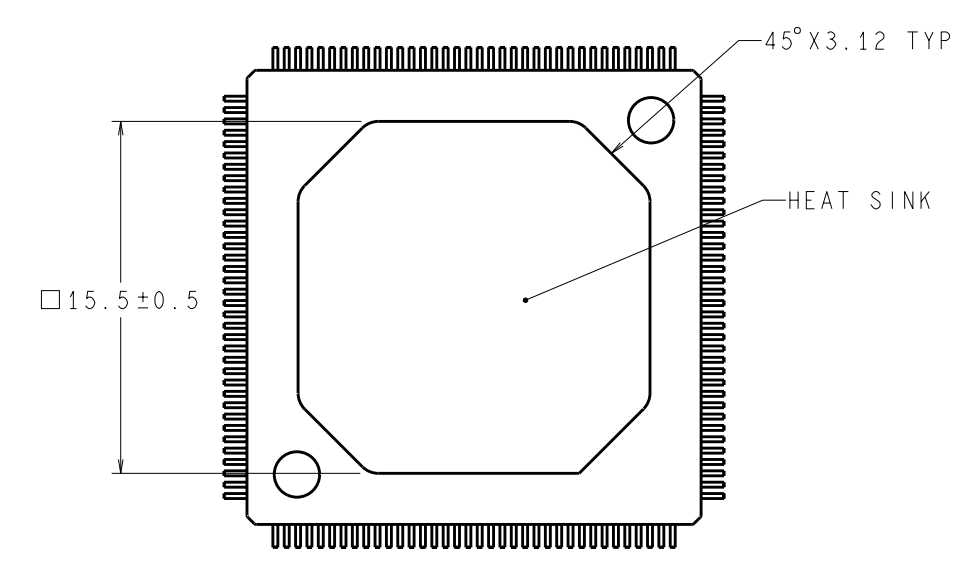
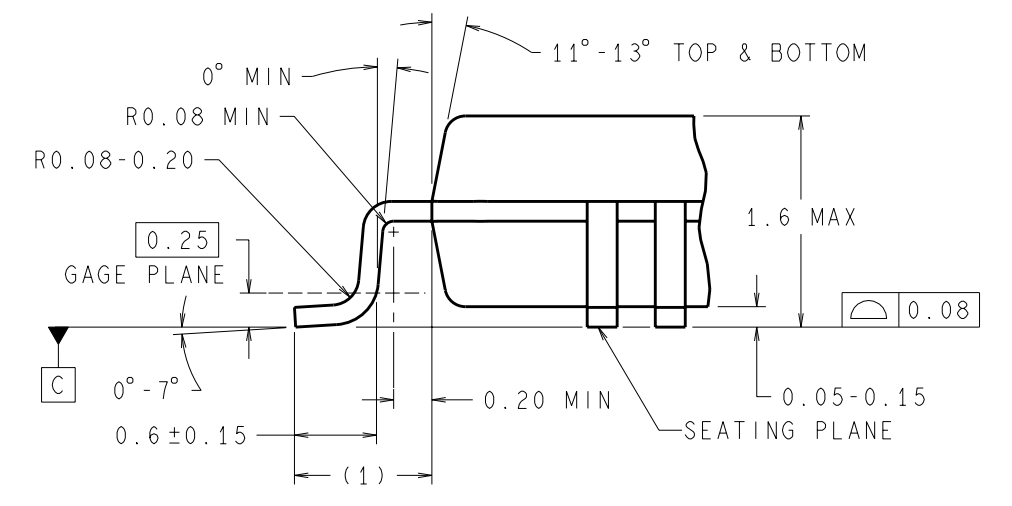


REVISIONS				
LTR	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	11646	02/06/1997	MS/GY
B	TITLE: LQFP WAS TOFP; UPDATE NOTE 4; ADD GEOMETRIC TOLERANCE	12317	11/10/1999	TL/RW



BACK VIEW  
SCALE: 5X



DETAIL A  
TYP, SCALE: 30X

DIMENSIONS ARE IN MILLIMETERS

NOTES: UNLESS OTHERWISE SPECIFIED

- STANDARD LEAD FINISH:  
7.62 MICROMETERS MINIMUM SOLDER PLATING (85/15)  
THICKNESS ON COPPER.
- DIMENSION DOES NOT INCLUDE MOLD PROTRUSION.  
MAXIMUM ALLOWABLE MOLD PROTRUSION 0.25mm PER SIDE.
- DIMENSION DOES NOT INCLUDE MOLD PROTRUSION.  
ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08mm.
- REFERENCE JEDEC REGISTRATION MS-026, VARIATION BFB, DATED FEBRUARY 1999.

APPROVALS	DATE	National Semiconductor			
DRAWN MARTA SUCHY	02/06/1997	2900 Semiconductor Dr., Santa Clara, CA 95052-8090			
DFTG. CHK. MARTA SUCHY	11/10/1999	LQFP, JEDEC METRIC, 20 X 20 X 1.4mm, 144 LEAD, H/S			
ENGR. CHK. RANDY WALBERG	11/10/1999				
PROJECTION		SCALE	SIZE	DRAWING NUMBER	REV
INCH [MM]		N/A	C	(SC)MKT-VNG144B	B
		FORMERLY: N/A	SHEET 1 of 1		