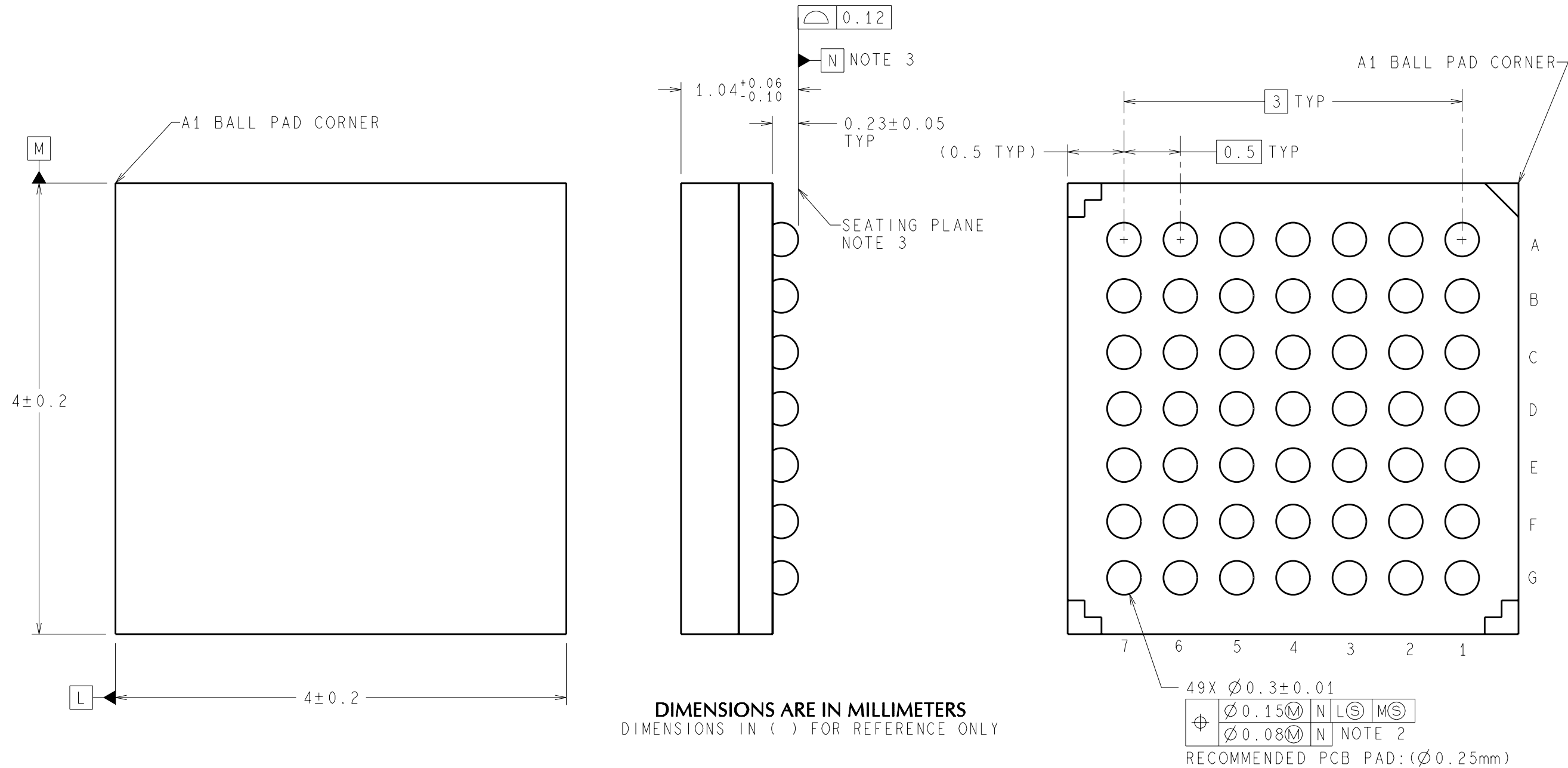


REVISIONS				
REV	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	1370	03/12/2004	MS/AP
B	DIM 1.04 +0.06/-0.10 WAS 1±0.1; UPDATE NOTE 4 & TITLE.	1514	07/20/2004	MS/AP
C	DIM 0.23 ±0.05 WAS 0.2±0.05; RECOMMENDED PCB PAD: (0.25mm) WAS (0.3mm); UPDATE JEDEC NOTE 4.	2220	12/05/2006	MS/AP
D	DIM 1.04 WAS 1.07; UPDATE JEDEC NOTE 4.	2354	07/09/2007	EL/MS/EL



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

NOTES: UNLESS OTHERWISE SPECIFIED

- FOR SOLDER BALL COMPOSITION, SEE "SOLDER INFORMATION" IN THE PACKAGING SECTION OF THE NATIONAL SEMICONDUCTOR WEB PAGE ([www.national.com](http://www.national.com)).
- DIMENSION MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM N.
- PRIMARY DATUM N AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
- NO JEDEC REGISTRATION AS OF JULY 2007.

APPROVALS		DATE	 National Semiconductor 2900 Semiconductor Dr., Santa Clara, CA 95052-8090
DRAWN	MARTA SUCHY	03/12/2004	
DFTG. CHK.	MARTA SUCHY	07/09/2007	
ENGR. CHK.	EUGENE LEE	07/09/2007	
PROJECTION  MM			<b>UFBGA, PLASTIC, LAMINATE, 4x4x1mm, 49 BALL, 0.5mm PITCH</b>
SCALE	SIZE	DRAWING NUMBER	REV
NTS	B	(SC)MKT-SLH49A	D
FORMERLY: N/A			SHEET 1 of 1