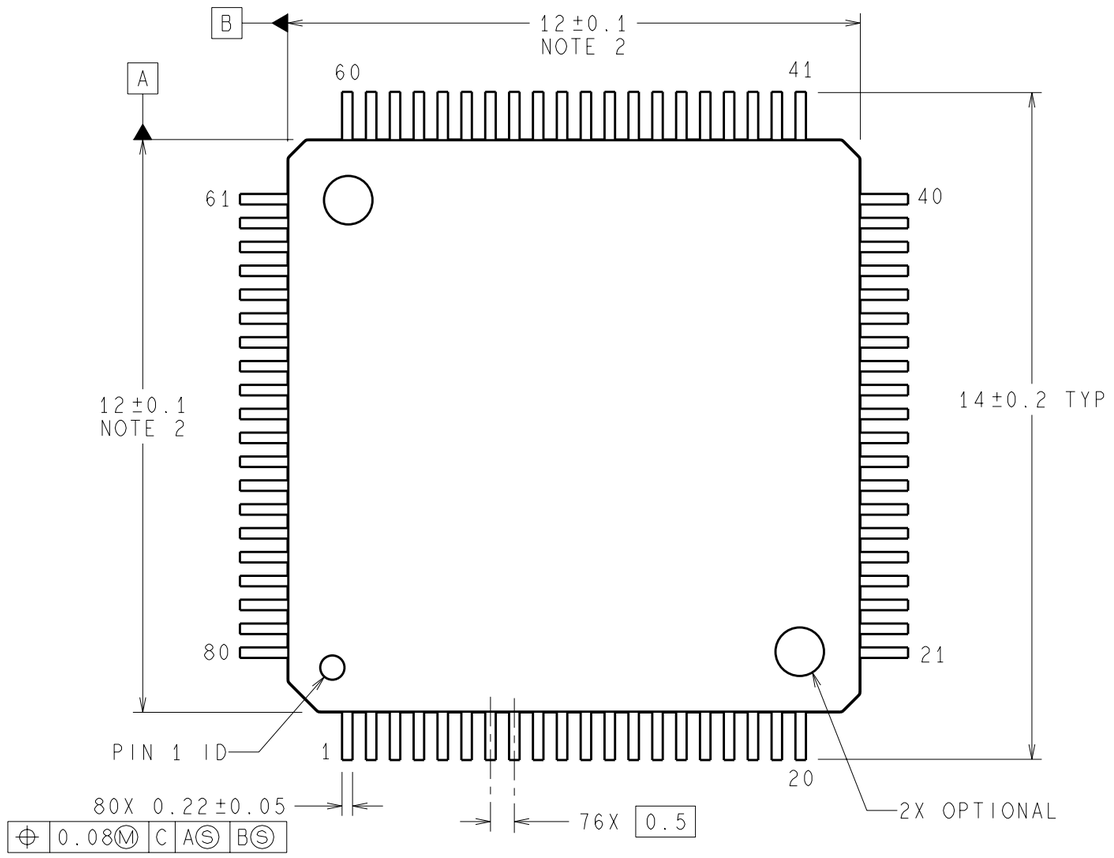
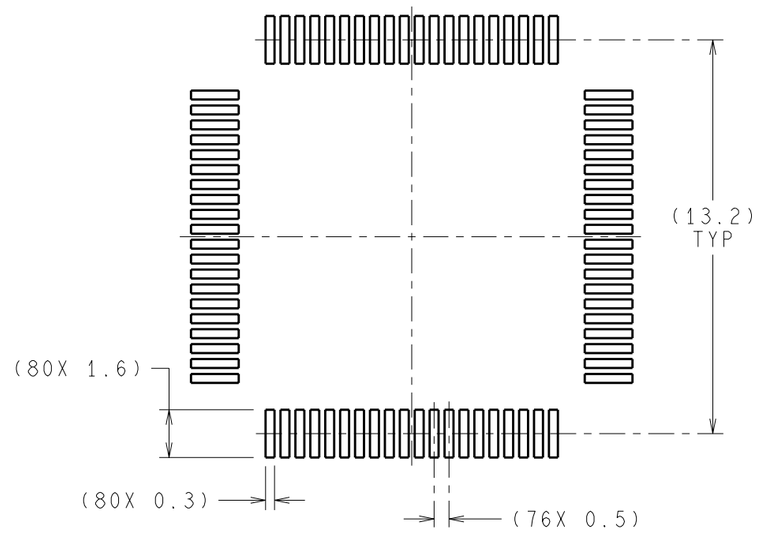
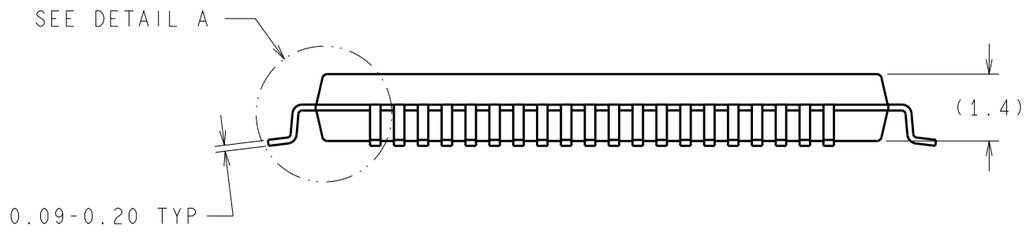
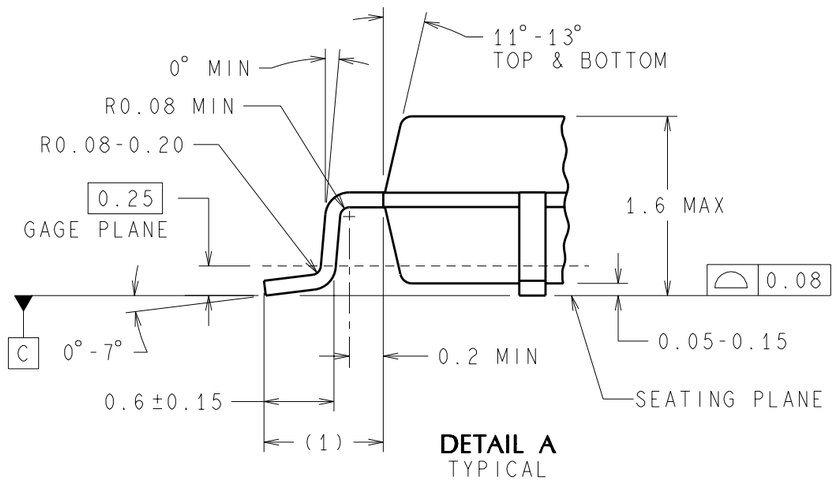
| REVISIONS | | | | |
|---|---|---|---|---|
| REV | DESCRIPTION | E.C.N. | DATE | BY/APP'D |
| C | REVISE & REDRAW | 10176 | 01/26/1994 | DEG/HJK |
| D | TITLE: LQFP WAS PQFP; UPDATE NOTE 3; ADD GEOMETRIC TOLERANCE | 12317 | 11/30/1999 | ACS/MS/RW |
| E | ADD LAND PATTERN; UPDATE NOTE 1, TITLE & REFORMAT DWG IN B SIZE PER CURRENT STD | 1729 | 02/16/2005 | TL/RW |




**RECOMMENDED LAND PATTERN**




**DETAIL A**
TYPICAL

NOTES: UNLESS OTHERWISE SPECIFIED

1. FOR LEAD FINISH THICKNESS AND COMPOSITION, SEE "SOLDER INFORMATION" IN THE PACKAGING SECTION OF THE NATIONAL SEMICONDUCTOR WEB PAGE (www.national.com)
2. DIMENSION DOES NOT INCLUDE MOLD PROTRUSION. MAXIMUM ALLOWABLE MOLD PROTRUSION 0.25mm PER SIDE.
3. REFERENCE JEDEC REGISTRATION MS-026, VARIATION BDD.

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

| APPROVALS | DATE |
|---|---|
| DRAWN: DE. GRADY | 01/26/1994 |
| DFTG. CHK.: MARTA SUCHY | 02/16/2005 |
| ENGR. CHK.: RANDALL WALBERG | 02/16/2005 |

PROJECTION: MM

National Semiconductor
2900 Semiconductor Dr., Santa Clara, CA 95052-8090

LQFP, JEDEC METRIC, 12x12x1.4mm, 80 LEAD, 0.5mm PITCH

| SCALE | SIZE | DRAWING NUMBER | REV |
|---|---|---|---|
| NTS | B | (SC)MKT-VHG80A | E |

FORMERLY: N/A

SHEET 1 of 1