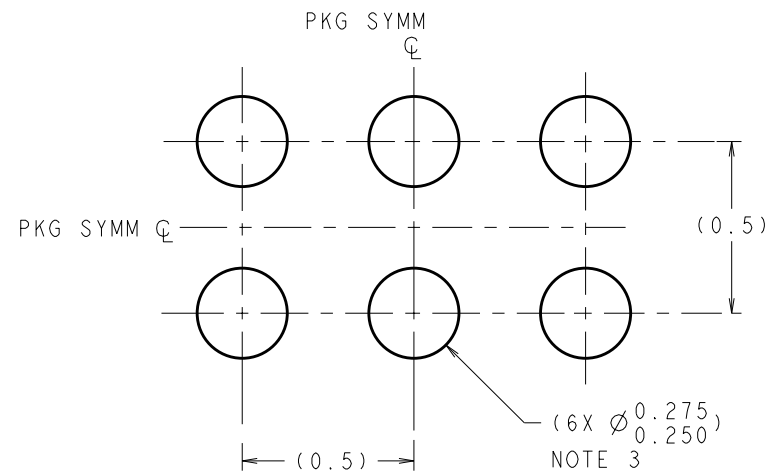
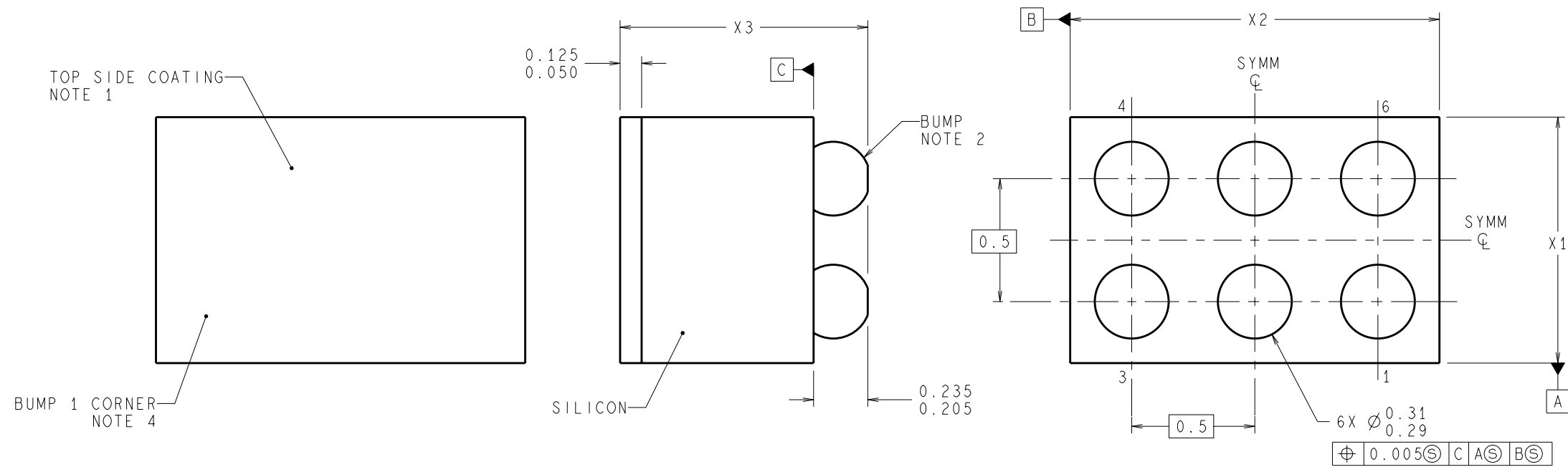


| REVISIONS |                             |        |            |          |
|-----------|-----------------------------|--------|------------|----------|
| LTR       | DESCRIPTION                 | E.C.N. | DATE       | BY/APP'D |
| A         | RELEASE TO DOCUMENT CONTROL | 299    | 04/13/2001 | MS/VP    |



**LAND PATTERN RECOMMENDATION**



**DIMENSIONS ARE IN MILLIMETERS**


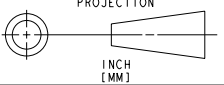
NOTES: UNLESS OTHERWISE SPECIFIED

- EPOXY COATING.
- 63Sn / 37Pb EUTECTIC BUMP.
- RECOMMEND NON-SOLDER MASK DEFINED LANDING PAD.
- PIN 1 IS ESTABLISHED BY LOWER LEFT CORNER WITH RESPECT TO TEXT ORIENTATION. REMAINING PINS ARE NUMBERED COUNTERCLOCKWISE.
- 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).  
EXAMPLE: BLA06AFA HAS WIDTH=1006, LENGTH=1641, HEIGHT=795
- REFERENCE JEDEC REGISTRATION MO-211, VARIATION BC.

|                                       |            |                                                    |      |                  |     |
|---------------------------------------|------------|----------------------------------------------------|------|------------------|-----|
| APPROVALS                             | DATE       | National Semiconductor                             |      |                  |     |
| DRAWN<br><b>MARTA SUCHY</b>           | 04/13/2001 | 2900 Semiconductor Dr., Santa Clara, CA 95052-8090 |      |                  |     |
| DFTG. CHK.<br><b>THANH LEQUANG</b>    | 04/13/2001 | <b>MICRO SMD, 6 BUMP(LARGE),<br/>0.5mm PITCH</b>   |      |                  |     |
| ENGR. CHK.<br><b>VIRAJ PATWARDHAN</b> | 04/13/2001 |                                                    |      |                  |     |
|                                       |            | SCALE                                              | SIZE | DRAWING NUMBER   | REV |
|                                       |            | N/A                                                | C    | (SC)MKT-BLA06XXX | A   |
| DO NOT SCALE DRAWING                  |            |                                                    |      | SHEET 1 of 2     |     |

| REVISIONS |             |        |      |
|-----------|-------------|--------|------|
| LTR       | DESCRIPTION | E.C.N. | DATE |
|           | SEE SHEET 1 |        |      |

| PACKAGE DIMENSIONS |                                         |               |                                          |               |                                           |
|--------------------|-----------------------------------------|---------------|------------------------------------------|---------------|-------------------------------------------|
| X1 DESIGNATOR      | X1 PACKAGE WIDTH<br>$\pm 30\mu\text{m}$ | X2 DESIGNATOR | X2 PACKAGE LENGTH<br>$\pm 30\mu\text{m}$ | X3 DESIGNATOR | X3 PACKAGE HEIGHT<br>$\pm 100\mu\text{m}$ |
| A                  | 1006                                    | A             | 1514                                     | A             | 795                                       |
| B                  | 1031                                    | B             | 1539                                     | B             | 945                                       |
| C                  | 1057                                    | C             | 1565                                     | C             | 995                                       |
| D                  | 1082                                    | D             | 1590                                     |               |                                           |
| E                  | 1107                                    | E             | 1615                                     |               |                                           |
| F                  | 1133                                    | F             | 1641                                     |               |                                           |
| G                  | 1158                                    | G             | 1666                                     |               |                                           |
| H                  | 1184                                    | H             | 1692                                     |               |                                           |
| J                  | 1209                                    | J             | 1717                                     |               |                                           |
| K                  | 1234                                    | K             | 1742                                     |               |                                           |
| L                  | 1260                                    | L             | 1768                                     |               |                                           |
| M                  | 1285                                    | M             | 1793                                     |               |                                           |
| N                  | 1311                                    | N             | 1819                                     |               |                                           |
| P                  | 1336                                    | P             | 1844                                     |               |                                           |
| Q                  | 1361                                    | Q             | 1869                                     |               |                                           |
| R                  | 1387                                    | R             | 1895                                     |               |                                           |
| S                  | 1412                                    | S             | 1920                                     |               |                                           |
| T                  | 1438                                    | T             | 1946                                     |               |                                           |
| U                  | 1463                                    | U             | 1971                                     |               |                                           |

|                                                                                                                              |            |                                                                                                                                                                           |                  |                                           |                 |
|------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------|-----------------|
| APPROVALS                                                                                                                    | DATE       |  <i>National Semiconductor</i><br>2900 Semiconductor Dr., Santa Clara, CA 95052-8090 |                  |                                           |                 |
| DRAWN<br><b>MARTA SUCHY</b>                                                                                                  | 04/13/2001 | <b>MICRO SMD, 6 BUMP(LARGE),<br/>0.5mm PITCH</b>                                                                                                                          |                  |                                           |                 |
| DFTG. CHK.<br>THANH LEQUANG                                                                                                  | 04/13/2001 |                                                                                                                                                                           |                  |                                           |                 |
| ENGR. CHK.<br>VIRAJ PATWARDHAN                                                                                               | 04/13/2001 |                                                                                                                                                                           |                  |                                           |                 |
|  PROJECTION<br><small>INCH [MM]</small> |            | SCALE<br><b>N/A</b>                                                                                                                                                       | SIZE<br><b>C</b> | DRAWING NUMBER<br><b>(SC)MKT-BLA06XXX</b> | REV<br><b>A</b> |
| DO NOT SCALE DRAWING                                                                                                         |            |                                                                                                                                                                           | SHEET 2 of 2     |                                           |                 |