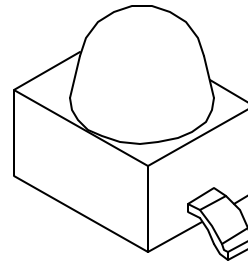
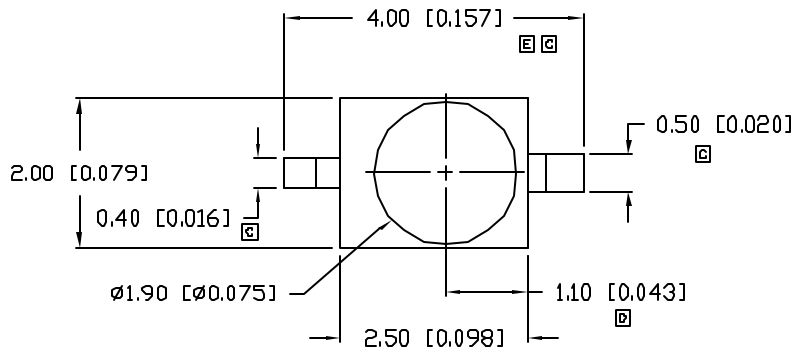
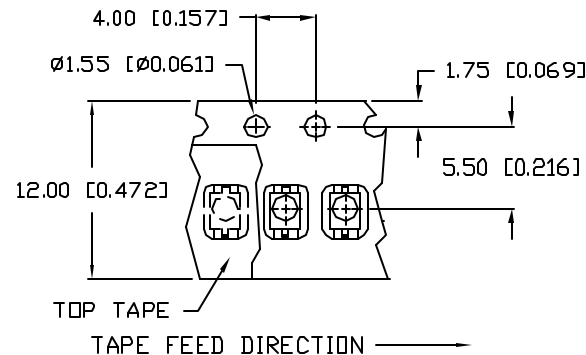
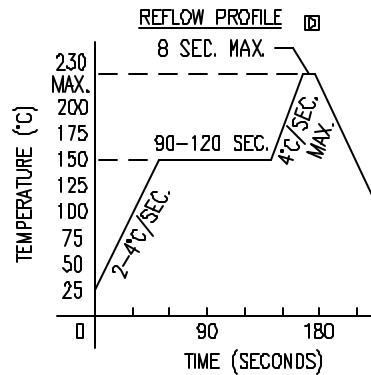
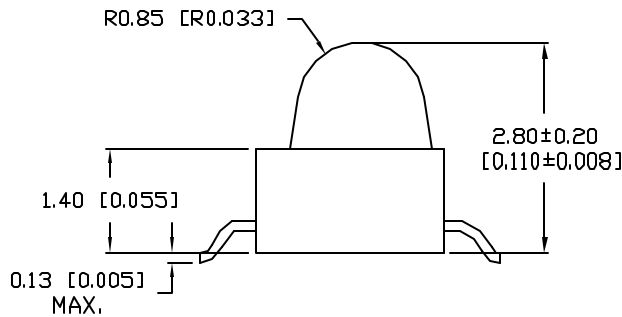


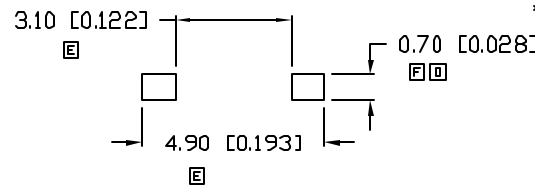
UNCONTROLLED DOCUMENT



ANODE CATHODE



RECOMMENDED SOLDER PAD LAYOUT



|                   |                                     |          |
|-------------------|-------------------------------------|----------|
| PART NUMBER       |                                     | REV.     |
| SSL-LXA228ID-TR11 |                                     | G        |
| REV.              | E.C.N. NUMBER AND REVISION COMMENTS | DATE     |
| A                 | CHG'D WHERE NOTED.                  | 8.3.94   |
| B                 | CHG'D WHERE NOTED.                  | 11.29.94 |
| C                 | ADDED LEAD WIDTHS.                  | 11.7.95  |
| D                 | E.C.N. #10550. & #10BRDR            | 10.21.99 |
| E                 | E.C.N. #11122.                      | 5.5.04   |
| F                 | E.C.N. #11146.                      | 7.8.04   |
| G                 | E.C.N. #11148.                      | 11.14.06 |

ELECTRO-OPTICAL CHARACTERISTICS  $T_A=25^\circ\text{C}$   $I_f=20\text{mA}$

| PARAMETER          | MIN         | TYP | MAX | UNITS          | TEST COND            |
|--------------------|-------------|-----|-----|----------------|----------------------|
| PEAK WAVELENGTH    |             | 635 |     | nm             |                      |
| FORWARD VOLTAGE    |             | 2.0 | 2.5 | V <sub>f</sub> |                      |
| REVERSE VOLTAGE    | 5.0         |     |     | V <sub>r</sub> | $I_f=100\mu\text{A}$ |
| AXIAL INTENSITY    |             | 15  |     | mcd            | $I_f=20\text{mA}$    |
| VIEWING ANGLE      |             | 50  |     | 2x theta       |                      |
| EMITTED COLOR:     | RED         |     |     |                |                      |
| EPOXY LENS FINISH: | WATER CLEAR |     |     |                |                      |

LIMITS OF SAFE OPERATION AT 25°C

| PARAMETER             | MAX        | UNITS |
|-----------------------|------------|-------|
| PEAK FORWARD CURRENT* | 160        | mA    |
| STEADY CURRENT        | 30         | mA    |
| POWER DISSIPATION     | 100        | mW    |
| DERATE FROM 25°C      | -1.2       | mW/°C |
| OPERATING TEMP.       | -40 TO +85 | °C    |
| STORAGE TEMP.         | -40 TO +85 | °C    |

\*  $t < 10\mu\text{s}$

NOTES:

- 1,000 PIECES PER REEL.
- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



UNCONTROLLED DOCUMENT

\*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (0.002), LEAD LENGTH=±0.75 (±0.030), MIN= +DECIMAL PRECISION -0.00, MAX.= +0.00 -DECIMAL PRECISION

|  |                   |
|--|-------------------|
| REV.   | PART NUMBER       |
| G  | SSL-LXA228ID-TR11 |
| AXIAL LED, GULL WING LEADS,<br>635nm RED LED, WATER CLEAR LENS, TAPE AND REEL. |                   |

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**RELIABILITY NOTE**  
 OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

|                |             |   |
|----------------|-------------|---|
|                |             | 290 E. HELEN ROAD<br>PALATINE, IL 60067-6976<br>PHONE: +1.847.359.2790<br>US WEB: www.lumex.com<br>TW WEB: www.lumex.com.tw |
| DRAWN BY:      | CHECKED BY: | APPROVED BY:  |
| jc             |             |   |
| DATE: 11.14.06 |             | PAGE: 1 OF 1  |
| SCALE: N/A     |             |   |