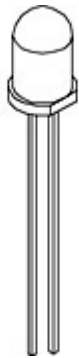


We Tame Photons to Work for You!



Products > LEDs > Thru-Hole > Round > 5mm > Standard > High Intensity



### Features / Options

- ▶ State-of-the-Art, High Brightness Chip Technology
- ▶ Choice of Colors and Lens Finishes
- ▶ Lead Frame / Lens Casting Reliability
- ▶ Easy-to-Solder Leads, Tin Finish
- ▶ Available Bulk or on Tape and Reel
- ▶ Lead Trimming and Forming Available
- ▶ Custom Shapes, Easily Tooled, Low Minimum

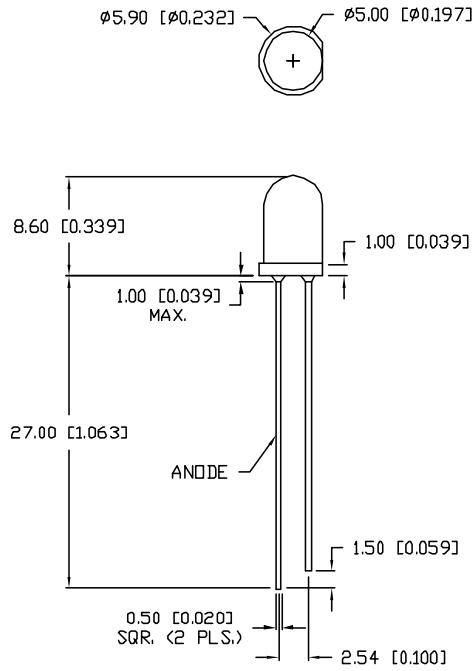
### Applications / Uses

- ▶ Board or Panel Indication or Illumination
- ▶ Annunciator and Control Panels
- ▶ Telecom Switches and Central Station Equipment
- ▶ Large Panel Indicators

| Part Number:     | Brightness | Dice Material | Emitted Color | Peak Wavelength | Epoxy Lens   | Operating Typ Vf (V) | Intensity Typ, mcd @ 20 mA | View Angle 2x Theta |   |
|------------------|------------|---------------|---------------|-----------------|--------------|----------------------|----------------------------|---------------------|---|
| SSL-LX5093PC     | HIGH       | InGaN         | Pink          | -               | Clear        | 3.5                  | 2200                       | 20                  | — |
| SSL-LX5093PGD    | STANDARD   | GaP           | Green         | 555             | Diffused     | 2.1                  | 30                         | 60                  | — |
| SSL-LX5093PGT    | STANDARD   | GaP           | Green         | 555             | Color Tinted | 2.0                  | 50                         | 30                  | — |
| SSL-LX5093SIC    | HIGH       | AllnGaP       | Red           | 636             | Clear        | 2.0                  | 1800                       | 30                  | — |
| SSL-LX5093SID    | HIGH       | AllnGaP       | Red           | 636             | Diffused     | 2.0                  | 700                        | 60                  | — |
| SSL-LX5093SOC    | HIGH       | AllnGaP       | Orange        | 610             | Clear        | 2.0                  | 2500                       | 30                  | — |
| SSL-LX5093SOD    | HIGH       | AllnGaP       | Orange        | 610             | Diffused     | 2.0                  | 850                        | 60                  | — |
| SSL-LX5093SRC/DU | STANDARD   | GaAlAs        | Red           | 660             | Clear        | 1.7                  | 1300                       | 30                  | — |
| SSL-LX5093SRC/DV | STANDARD   | GaAlAs        | Red           | 660             | Clear        | 1.7                  | 1600                       | 30                  | — |
| SSL-LX5093SRC/DW | STANDARD   | GaAlAs        | Red           | 660             | Clear        | 1.7                  | 2000                       | 30                  | — |

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|               |                                     |          |
|---------------|-------------------------------------|----------|
| PART NUMBER   |                                     | REV.     |
| SSL-LX5093SID |                                     | A        |
| REV.          | E.C.N. NUMBER AND REVISION COMMENTS | DATE     |
| A             | E.C.N. #11148                       | 10.24.06 |



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

| PARAMETER          | MIN          | TYP | MAX | UNITS          | TEST COND            |
|--------------------|--------------|-----|-----|----------------|----------------------|
| PEAK WAVELENGTH    |              | 636 |     | nm             |                      |
| FORWARD VOLTAGE    |              | 2.0 | 2.5 | V <sub>r</sub> |                      |
| REVERSE VOLTAGE    | 5.0          |     |     | V <sub>r</sub> | $I_f=100\mu\text{A}$ |
| AXIAL INTENSITY    |              | 700 |     | mcd            | $I_f=20\text{mA}$    |
| VIEWING ANGLE      |              | 60  |     | 2x theta       |                      |
| EMITTED COLOR:     | RED          |     |     |                |                      |
| EPOXY LENS FINISH: | RED DIFFUSED |     |     |                |                      |

LIMITS OF SAFE OPERATION AT 25°C

| PARAMETER                | MAX        | UNITS      |
|--------------------------|------------|------------|
| PEAK FORWARD CURRENT*    | 150        | mA         |
| STEADY CURRENT           | 30         | mA         |
| POWER DISSIPATION        | 105        | mW         |
| DERATE FROM 25°C         | -1.2       | mW/°C      |
| OPERATING, STORAGE TEMP. | -40 TO +85 | °C         |
| SOLDERING TEMP.          | +260       | °C         |
| 2.0mm FROM BODY          |            | 3 SEC. MAX |

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



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\*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.<br>A   | PART NUMBER<br>SSL-LX5093SID | <p><b>CONFIDENTIAL INFORMATION</b></p> <p>THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.</p> <p><b>RELIABILITY NOTE</b></p> <p>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.</p> |  | DRAWN BY:<br>JC | CHECKED BY: | APPROVED BY: | DATE: 10.24.06<br>PAGE: 1 OF 1<br>SCALE: N/A |
| T-5mm 636nm SUPER HIGH INTENSITY RED LED,<br>RED DIFFUSED LENS. |                              |   |  |                 |             |              |  |