



We Tame Photons to Work for You!



## Products > LEDs > Surface Mount > Axial Lead Gull Wing

### Features / Options



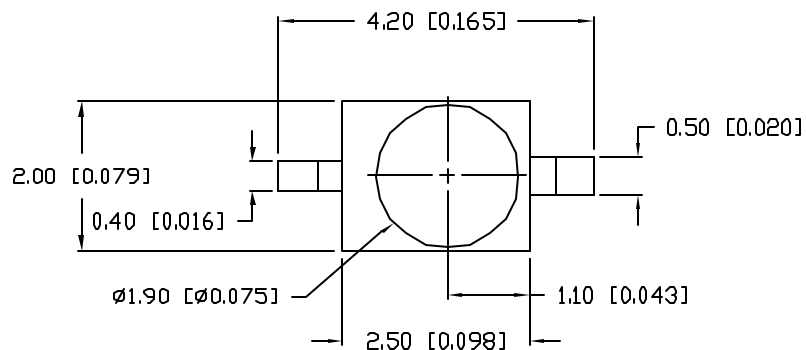
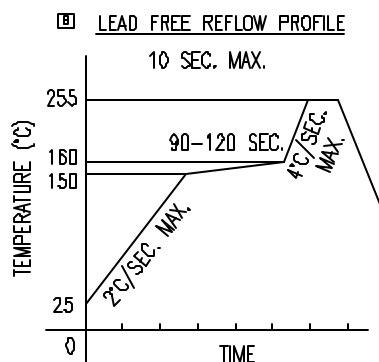
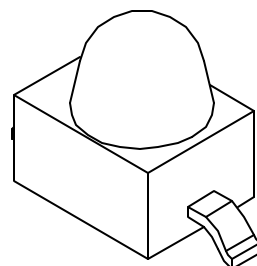
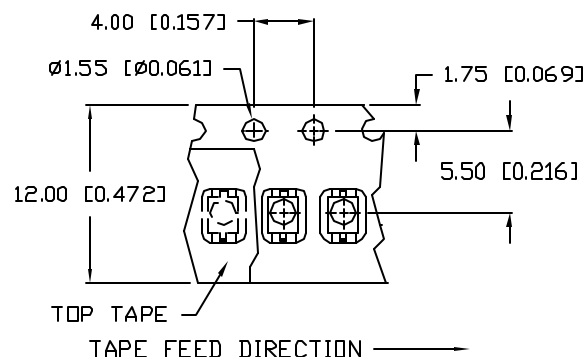
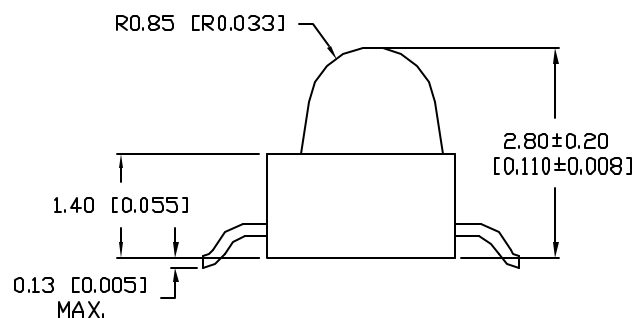
- ▶ State-of-the-Art, High Brightness Chip Technology
- ▶ Choice of Colors and Lens Finishes
- ▶ Lead Frame / Lens Casting Reliability
- ▶ Easy-to-Solder Leads, Tin Finish
- ▶ Available Bulk or on Tape and Reel
- ▶ Lead Trimming and Forming Available
- ▶ Custom Shapes, Easily Tooled, Low Minimum

### Applications / Uses

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

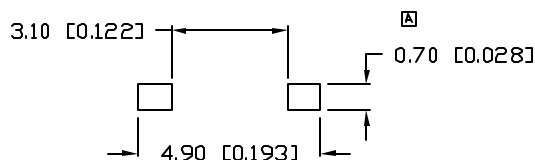
| Part Number:       |  | Brightness | Dice Material | Emitted Color | Peak Wavelength | Epoxy Lens | Operating Typ Vf (V) | Intensity Typ, mcd @ 20 mA | View Angle 2x Theta |  |   |
|--------------------|--|------------|---------------|---------------|-----------------|------------|----------------------|----------------------------|---------------------|--|---|
| SSL-LXA228AC-TR11  |  | HIGH       | AlInGaP       | Amber         | 610             | Clear      | 2.1                  | 80                         | 25                  |  | — |
| SSL-LXA228GC-TR11  |  | STANDARD   | GaP           | Green         | 565             | Clear      | 2.1                  | 30                         | 25                  |  | — |
| SSL-LXA228IC-TR11  |  | HIGH       | AlInGaP       | Red           | 630             | Clear      | 2.1                  | 80                         | 25                  |  | — |
| SSL-LXA228SBC-TR11 |  | STANDARD   | SiC           | Blue          | 430             | Clear      | 4.5                  | 100                        | 25                  |  | — |
| SSL-LXA228SIC-TR11 |  | HIGH       | AlInGaP       | Red           | 636             | Clear      | 2                    | 475                        | 25                  |  | — |
| SSL-LXA228SOC-TR11 |  | HIGH       | AlInGaP       | Orange        | 610             | Clear      | 2                    | 700                        | 25                  |  | — |
| SSL-LXA228SRC-TR11 |  | STANDARD   | GaAlAs        | Red           | 660             | Clear      | 1.8                  | 600                        | 25                  |  | — |
| SSL-LXA228SUGCTR11 |  | HIGH       | AlInGaP       | Green         | 574             | Clear      | 2.2                  | 200                        | 25                  |  | — |
| SSL-LXA228SYC-TR11 |  | HIGH       | AlInGaP       | Yellow        | 590             | Clear      | 2                    | 300                        | 25                  |  | — |
| SSL-LXA228UPGCTR11 |  | HIGH       | InGaN         | Green         | 525             | Clear      | 3.5                  | 1400                       | 25                  |  | — |

UNCONTROLLED DOCUMENT

ANODE  CATHODE

TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

## RECOMMENDED SOLDER PAD LAYOUT

PART NUMBER  
SSL-LXA228SUGCTR11

REV.

B

| REV. | E.C.N. NUMBER AND REVISION COMMENTS | DATE     |
|------|-------------------------------------|----------|
| A    | E.C.N. #11146.                      | 7.8.04   |
| B    | E.C.N. #11148.                      | 11.15.06 |

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

| PARAMETER          | MIN         | TYP | MAX | UNITS    | TEST COND            |
|--------------------|-------------|-----|-----|----------|----------------------|
| PEAK WAVELENGTH    |             | 574 |     | nm       |                      |
| FORWARD VOLTAGE    |             | 2.2 | 2.6 | $V_f$    |                      |
| REVERSE VOLTAGE    | 5.0         |     |     | $V_r$    | $I_r=100\mu\text{A}$ |
| AXIAL INTENSITY    |             | 200 |     | mcd      | $I_f=20\text{mA}$    |
| VIEWING ANGLE      |             | 25  |     | 2x theta |                      |
| EMITTED COLOR:     | GREEN       |     |     |          |                      |
| EPOXY LENS FINISH: | WATER CLEAR |     |     |          |                      |

## LIMITS OF SAFE OPERATION AT 25°C

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



\*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.

B

PART NUMBER

SSL-LXA228SUGCTR11

AXIAL LED, GULL WING LEADS, 574nm AlInGaP SUPER GREEN,  
WATER CLEAR LENS, TAPE AND REEL.

## CONFIDENTIAL INFORMATION

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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.



DRAWN BY:

JC

CHECKED BY:

APPROVED BY:

DATE: 11.15.06

PAGE: 1 OF 1

SCALE: N/A