



We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 0603 Package > Half Moon Solder Terminals



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

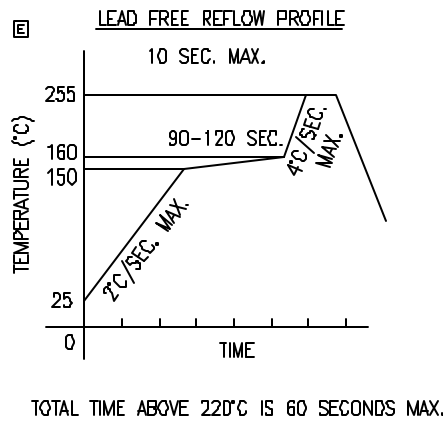
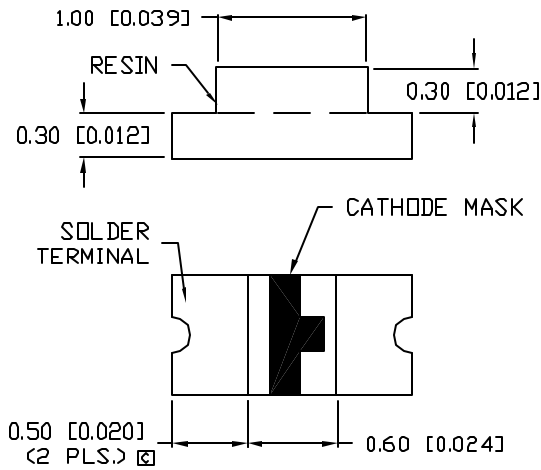
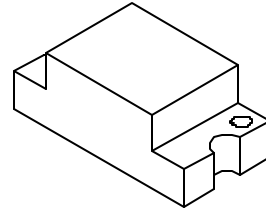
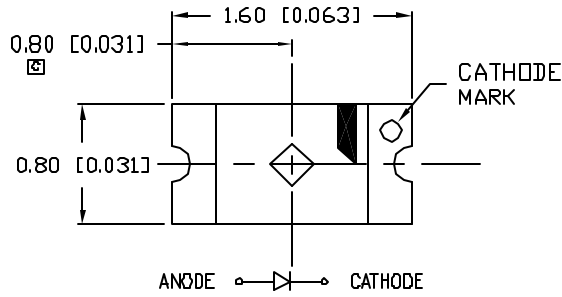
Applications / Uses

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

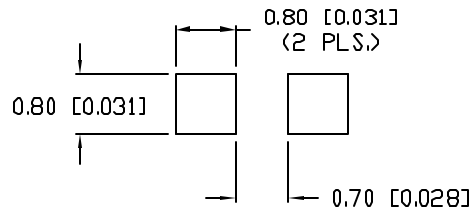
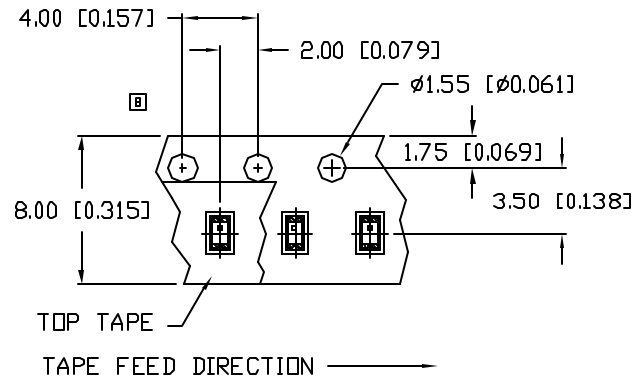
| Part Number: | Brightness | Dice Material | Emitted Color | Peak Wavelength | Epoxy Lens | Operating Typ Vf (V) | Intensity Typ, mcd @ 20 mA | View Angle 2x Theta | | |
|-------------------|------------|---------------|---------------|-----------------|----------------|----------------------|----------------------------|---------------------|--|---|
| SML-LX0603GW-TR | STANDARD | GaP | Green | 565 | White Diffused | 2.1 | 18 | 160 | | — |
| SML-LX0603IW-TR | STANDARD | GaAsP | Red | 635 | White Diffused | 2 | 14 | 160 | | — |
| SML-LX0603SIW-TR | HIGH | AlInGaP | Red | 636 | White Diffused | 2.0 | 60 | 140 | | — |
| SML-LX0603SOW-TR | HIGH | AlInGaP | Orange | 610 | White Diffused | 2.0 | 60 | 140 | | — |
| SML-LX0603SRW-TR | STANDARD | GaAlAs | Red | 660 | White Diffused | 1.8 | 45 | 140 | | — |
| SML-LX0603SUGW-TR | HIGH | AlInGaP | Green | 574 | White Diffused | 2.2 | 45 | 140 | | — |
| SML-LX0603SYW-TR | HIGH | AlInGaP | Yellow | 590 | White Diffused | 2.0 | 60 | 140 | | — |
| SML-LX0603UPGW-TR | HIGH | InGaN | Green | 525 | White Diffused | 3.5 | 45 | 140 | | — |
| SML-LX0603USBW-TR | HIGH | InGaN | Blue | 470 | White Diffused | 3.5 | 20 | 140 | | — |
| SML-LX0603UWD-TR | HIGH | InGaN | White | - | Diffused | 3.5 | 65 | 140 | | — |

SML-LX0603YW-TR STANDARD GaAsP Yellow 585 White Diffused 2 14 160

UNCONTROLLED DOCUMENT



RECOMMENDED SOLDER PAD LAYOUT



PART NUMBER
SML-LX0603GW-TR

REV.
F

| REV. | E.C.N. NUMBER AND REVISION COMMENTS | DATE |
|------|-------------------------------------|----------|
| A | E.C.N. #10BRDR. & REDRAWN. | 9.30.98 |
| B | E.C.N. #10644. | 7.18.00 |
| C | E.C.N. #10933. | 12.3.02 |
| D | E.C.N. #10967. | 3.14.03 |
| E | E.C.N. #1114B. | 12.06.04 |
| F | E.C.N. #1150B. | 05.19.08 |

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

| PARAMETER | MIN | TYP | MAX | UNITS | TEST COND |
|--------------------|----------------------|-----|-----|------------|----------------------|
| PEAK WAVELENGTH | | 565 | | nm | |
| FORWARD VOLTAGE | | 2.2 | 2.6 | V_f | $I_f=20\text{mA}$ |
| REVERSE VOLTAGE | 5.0 | | | V_r | $I_f=100\mu\text{A}$ |
| AXIAL INTENSITY | | 18 | | mcd | $I_f=20\text{mA}$ |
| VIEWING ANGLE | | 180 | | $2x$ theta | |
| EMITTED COLOR: | GREEN | | | | |
| EPOXY LENS FINISH: | MILKY WHITE DIFFUSED | | | | |

LIMITS OF SAFE OPERATION AT 25°C

| PARAMETER | MAX | UNITS |
|-----------------------|------------|-------|
| PEAK FORWARD CURRENT* | 100 | mA |
| STEADY CURRENT | 25 | mA |
| POWER DISSIPATION | 50 | mW |
| DERATE FROM 25°C | -1.2 | mW/°C |
| OPERATING TEMP. | -25 TO +85 | °C |
| STORAGE TEMP. | -30 TO +85 | °C |

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

NOTES:

- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 2 STANDARDS

UNCONTROLLED DOCUMENT

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.038), 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 MAX= +0.00 -DECIMAL PRECISION

REV. F PART NUMBER SML-LX0603GW-TR

1.6mm x 0.8mm PCB CHIP, SURFACE MOUNT LED,
565nm GREEN LED, MILKY WHITE DIFFUSED LENS.

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: CT CHECKED BY: APPROVED BY: DATE: 12.3.02
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SCALE: N/A