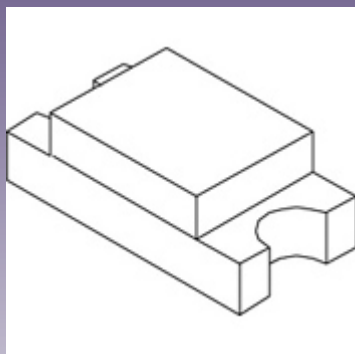




We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 1206 Package > Half Moon Solder Terminals > Standard



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

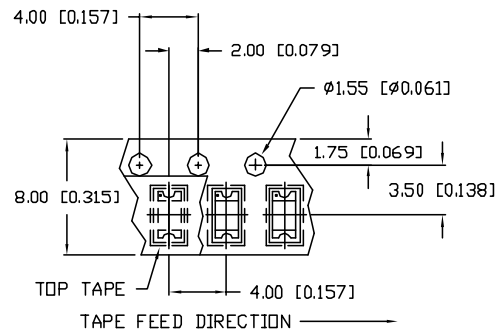
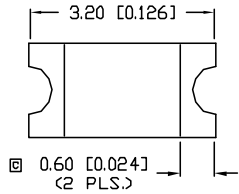
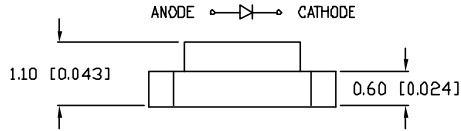
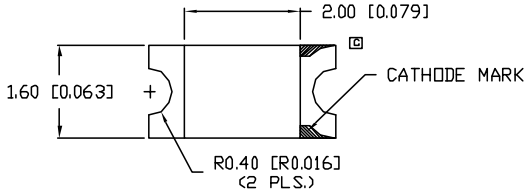
Applications / Uses

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

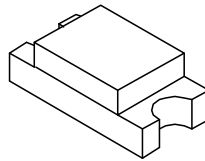
| Part Number: | Brightness | Dice Material | Emitted Color | Peak Wavelength | Epoxy Lens | Operating Typ Vf (V) | Intensity Typ, mcd @ 20 mA | View Angle 2x Theta | | |
|------------------|------------|---------------|---------------|-----------------|----------------|----------------------|----------------------------|---------------------|--|---|
| SML-LX1206AC-TR | HIGH | AlInGaP | Amber | 610 | Clear | 2.0 | 6 | 160 | | — |
| SML-LX1206AW-TR | HIGH | AlInGaP | Amber | 610 | White Diffused | 2.0 | 6 | 160 | | — |
| SML-LX1206GC-TR | STANDARD | GaP | Green | 565 | Clear | 2.1 | 10 | 160 | | — |
| SML-LX1206GC-TR1 | STANDARD | GaP | Green | 565 | Clear | 2.2 | 10 | 160 | | — |
| SML-LX1206GW-TR | STANDARD | GaP | Green | 565 | White Diffused | 2.2 | 10 | 160 | | — |
| SML-LX1206IC-TR | STANDARD | GaAsP | Red | 635 | Clear | 2 | 6 | 160 | | — |
| SML-LX1206IW-TR | STANDARD | GaAsP | Red | 635 | White Diffused | 2.0 | 6 | 160 | | — |
| SML-LX1206PGC-TR | STANDARD | GaP | Green | 555 | Clear | 2.1 | 6 | 160 | | — |
| SML-LX1206SGC-TR | STANDARD | GaP | Green | 565 | Clear | 2.2 | 10 | 160 | | — |
| SML-LX1206SGW-TR | STANDARD | GaP | Green | 565 | White Diffused | 2.2 | 10 | 160 | | — |

| | | | | | | | | | | | |
|-------------------|--|----------|---------|--------------|-----|----------------|---------|-----|-----|--|---|
| SML-LX1206SIC-TR | | HIGH | AlInGaP | Red | 636 | Clear | 2.0 | 70 | 140 | | — |
| SML-LX1206SOC-TR | | HIGH | AlInGaP | Orange | 610 | Clear | 2.0 | 70 | 140 | | — |
| SML-LX1206SRC-TR | | STANDARD | GaAlAs | Red | 660 | Clear | 1.85 | 100 | 90 | | — |
| SML-LX1206SRW-TR | | STANDARD | GaAlAs | Red | 660 | White Diffused | 1.8 | 15 | 160 | | — |
| SML-LX1206SUGC-TR | | HIGH | AlInGaP | Green | 574 | Clear | 2.2 | 45 | 140 | | — |
| SML-LX1206SYC-TR | | HIGH | AlInGaP | Yellow | 590 | Clear | 2.2 | 70 | 140 | | — |
| SML-LX1206SYW-TR | | HIGH | AlInGaP | Yellow | 590 | White Diffused | 2.0 | 40 | 160 | | — |
| SML-LX1206UPGC-TR | | HIGH | InGaN | Green | 525 | Clear | 3.5 | 45 | 140 | | — |
| SML-LX1206USBC-TR | | HIGH | InGaN | Blue | 470 | Clear | 3.5 | 25 | 140 | | — |
| SML-LX1206UWW-TR | | HIGH | InGaN | White | - | Diffused | 3.5 | 90 | 140 | | — |
| SML-LX1206YC-TR | | STANDARD | GaAsP | Yellow | 585 | Clear | 2 | 6 | 160 | | — |
| SML-LX1206YGC-TR | | STANDARD | GaAsP | Yellow/Green | 585 | Clear | 2.1/2.2 | 10 | 160 | | — |

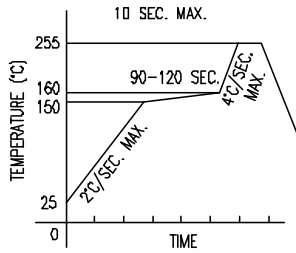
UNCONTROLLED DOCUMENT



*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).

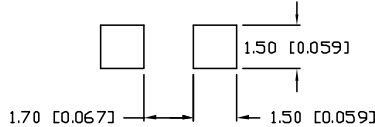


LEAD FREE REFLOW PROFILE



TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

RECOMMENDED SOLDER PAD LAYOUT



| | | |
|-------------------|-------------------------------------|----------|
| PART NUMBER | | REV. |
| SML-LX1206SUGC-TR | | C |
| REV. | E.C.N. NUMBER AND REVISION COMMENTS | DATE |
| A | E.C.N. #10967. | 3.14.03 |
| B | E.C.N. #11148. | 6.5.05 |
| C | E.C.N. #11466. | 12.28.07 |

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 | $I_f=100\mu\text{A}$ |
| AXIAL INTENSITY | | 45 | | md | $I_f=20\text{mA}$ |
| VIEWING ANGLE | | 140 | | 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 |

NOTES:

1. THE POLARITY MARK IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.

CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 4 STANDARDS

UNCONTROLLED DOCUMENT

| | |
|------|-------------------|
| REV. | PART NUMBER |
| C | SML-LX1206SUGC-TR |

3.2mm x 1.6mm PCB SURFACE MOUNT LED,
574nm SUPER ULTRA GREEN LED,
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: | CHECKED BY: | APPROVED BY: | DATE: |
| BC | | | 1.8.01 |
| | | | PAGE: 1 OF 1 |
| | | | SCALE: N/A |