

UNCONTROLLED DOCUMENT

PART NUMBER
SML-LX0402SUGC-TR

REV. E

| REV. | E.C.N. NUMBER AND REVISION COMMENTS | DATE |
|------|-------------------------------------|----------|
| A | E.C.N. #10873. | 6.4.02 |
| B | E.C.N. #10967. | 3.14.03 |
| C | E.C.N. #10983. | 4.18.03 |
| D | E.C.N. #11148. | 12.03.04 |
| E | E.C.N. #11508. | 03.05.09 |

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 | | mcd | $I_f=20\text{mA}$ |
| VIEWING ANGLE | | 120 | | $2x \theta_{\text{max}}$ | |
| EMITTED COLOR: | GREEN | | | | |
| EPOXY LENS FINISH: | WATER CLEAR | | | | |

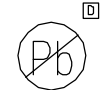
LIMITS OF SAFE OPERATION AT 25°C

| PARAMETER | MAX | UNITS |
|--------------------------------|------------|----------------------------|
| PEAK FORWARD CURRENT* | 160 | mA |
| STEADY CURRENT | 25 | mA |
| POWER DISSIPATION | 100 | mW |
| DERATE FROM 25°C | -1.2 | $\text{mW}/^\circ\text{C}$ |
| OPERATING TEMP. | -40 TO +85 | $^\circ\text{C}$ |
| STORAGE TEMP. | -40 TO +85 | $^\circ\text{C}$ |

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

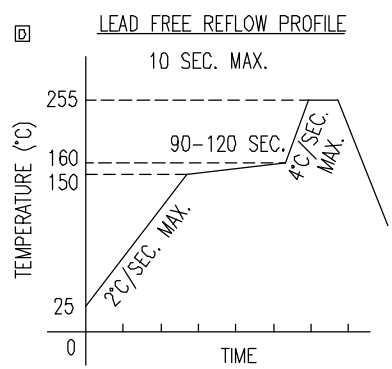
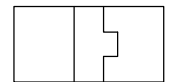
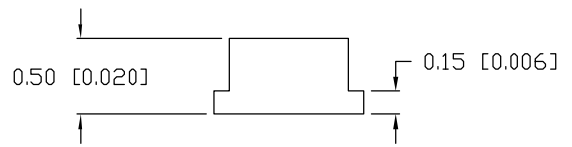
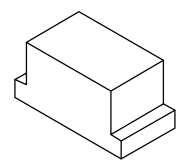
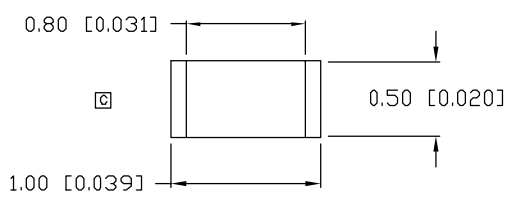
NOTES:

- PARTS PACKAGED IN CONDUCTIVE COVER AND CARRIER TAPE.
- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



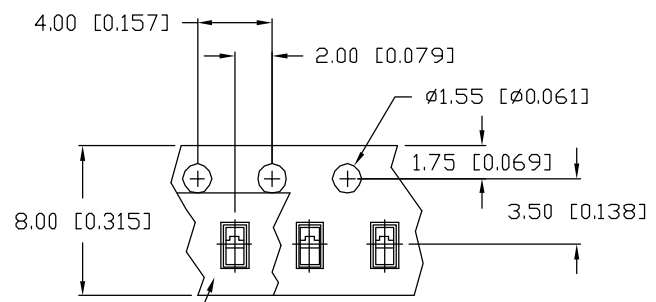
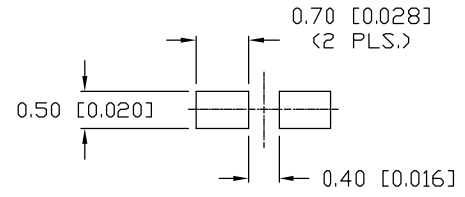
CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 3 STANDARDS

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TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

RECOMMENDED SOLDER PAD LAYOUT



TOP TAPE
TAPE FEED DIRECTION →

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±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

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1.0mm x 0.5mm SURFACE MOUNT LED,
574nm AlInGaP GREEN 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.

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| DRAWN BY: CT | CHECKED BY: | APPROVED BY: | DATE: 6.4.02 |
| | | | PAGE: 1 OF 1 |
| | | | SCALE: N/A |