



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

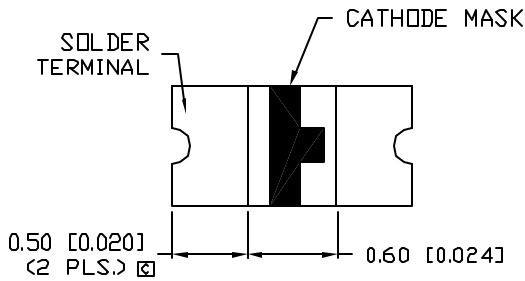
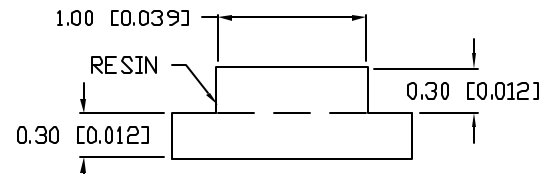
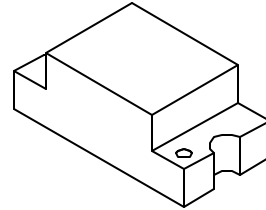
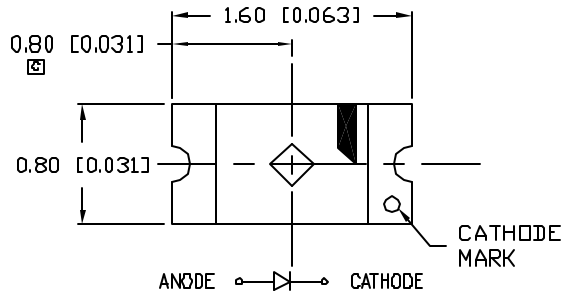
Applications / Uses

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

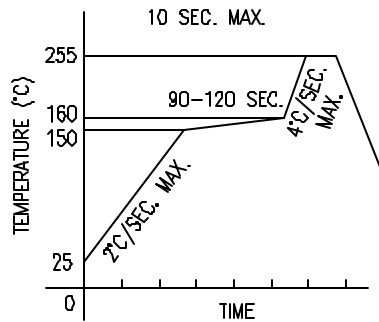
Part Number:	Brightness	Dice Material	Emitted Color	Peak Wavelength	Epoxy Lens	Operating Typ Vf (V)	Intensity Typ, mcd @ 20 mA	View Angle 2x Theta		
SML-LX0603GW-TR	STANDARD	GaP	Green	565	White Diffused	2.1	18	160		—
SML-LX0603IW-TR	STANDARD	GaAsP	Red	635	White Diffused	2	14	160		—
SML-LX0603SIW-TR	HIGH	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

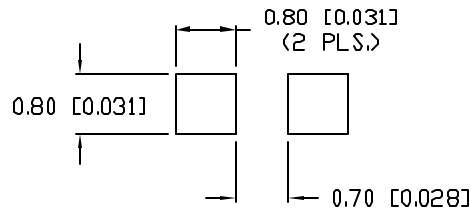
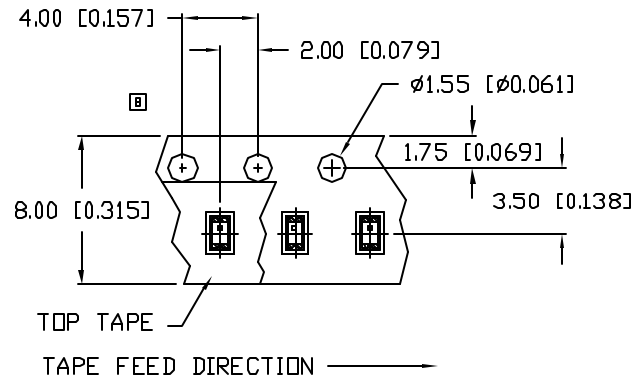


LEAD FREE REFLOW PROFILE



TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

RECOMMENDED SOLDER PAD LAYOUT



PART NUMBER
SML-LX0603IW-TR

REV.
E

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

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

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		635		nm	
FORWARD VOLTAGE		2.0	2.5	V _f	
REVERSE VOLTAGE	5.0			V _r	I _r =100μA
AXIAL INTENSITY		14		med	I _f =20mA
VIEWING ANGLE		160		2x theta	
EMITTED COLOR:	RED				
EPOXY LENS FINISH:	MILKY WHITE DIFFUSED				

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT*	100	mA
STEADY CURRENT	30	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<10μs

NOTES:

- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.

CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 4 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 -0.00 MAX= +0.00 -DECIMAL PRECISION

REV. E	PART NUMBER SML-LX0603IW-TR
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1.6mm x 0.8mm PCB CHIP, SURFACE MOUNT LED,
635nm RED LED, MILKY WHITE DIFFUSED LENS.

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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: 7.22.97 PAGE: 1 OF 1 SCALE: N/A
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