



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

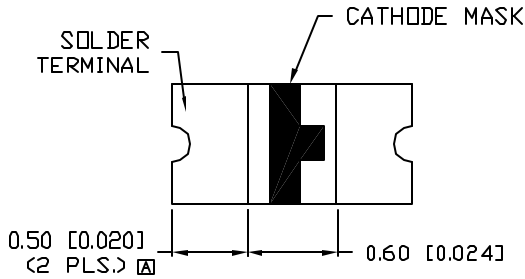
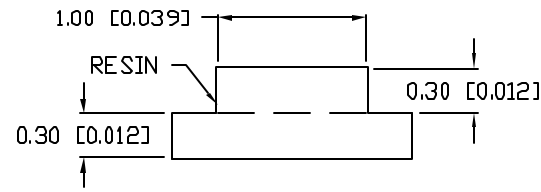
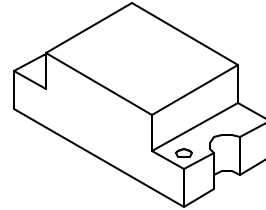
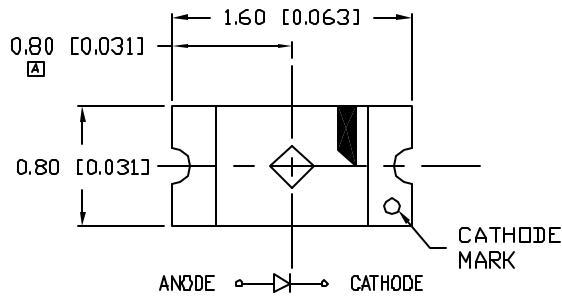
Applications / Uses

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

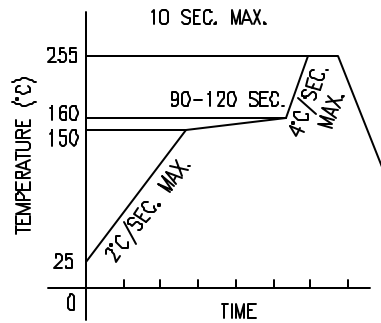
Part Number:	Brightness	Dice Material	Emitted Color	Peak Wavelength	Epoxy Lens	Operating Typ Vf (V)	Intensity Typ, mcd @ 20 mA	View Angle 2x Theta		
SML-LX0603GW-TR	STANDARD	GaP	Green	565	White Diffused	2.1	18	160		—
SML-LX0603IW-TR	STANDARD	GaAsP	Red	635	White Diffused	2	14	160		—
SML-LX0603SIW-TR	HIGH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

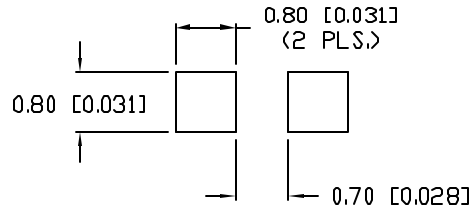
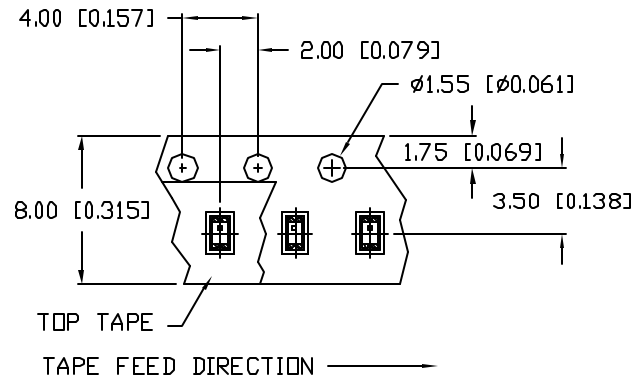


LEAD FREE REFLOW PROFILE



TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

RECOMMENDED SOLDER PAD LAYOUT



*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

PART NUMBER		REV.
SML-LX0603SUGW-TR		C
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10933.	12.3.02
B	E.C.N. #10967.	3.14.03
C	E.C.N. #11148.	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		574		nm	
FORWARD VOLTAGE		2.2	2.6	V _f	
REVERSE VOLTAGE	5.0			V _r	I _r =100µA
AXIAL INTENSITY		45		mcad	I _f =20mA
VIEWING ANGLE		140		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<10µs

NOTES:

- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 4 STANDARDS

UNCONTROLLED DOCUMENT

REV.	PART NUMBER
C	SML-LX0603SUGW-TR

1.6mm x 0.8mm PCB CHIP, SURFACE MOUNT LED,
574 SUPER ULTRA GREEN LED, MILKY WHITE DIFFUSED LENS.

CONFIDENTIAL INFORMATION
THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.

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:
CT			4.14.02
			PAGE: 1 OF 1
			SCALE: N/A