



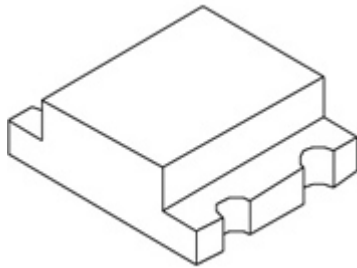
We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 1210 Package > Standard

### Features / Options

### Applications / Uses

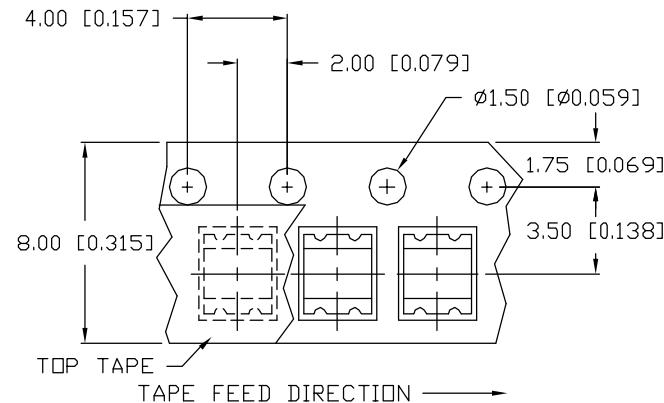
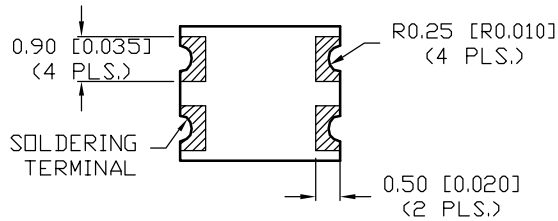
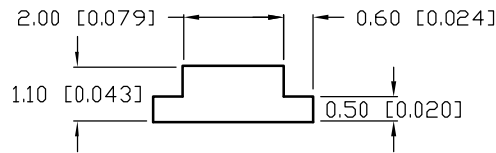
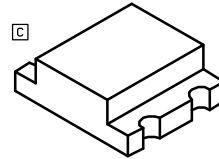
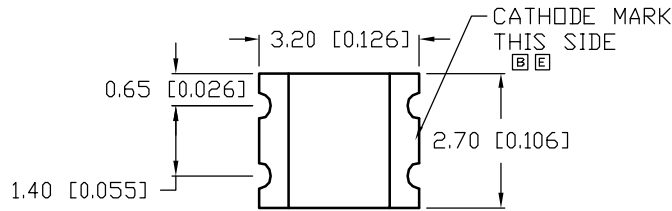
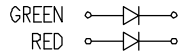


- ▶ State-of-the-Art, High Brightness Chip Technology
- ▶ Choice of Colors and Lens Finishes
- ▶ Lead Frame / Lens Casting Reliability
- ▶ Easy-to-Solder Leads, Tin Finish
- ▶ Available Bulk or on Tape and Reel
- ▶ Lead Trimming and Forming Available
- ▶ Custom Shapes, Easily Tooled, Low Minimum

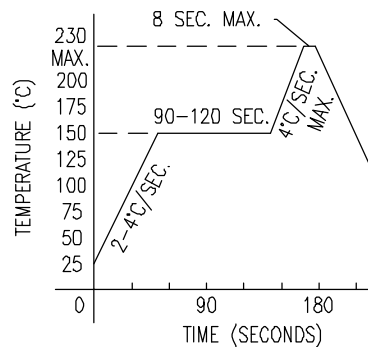
- ▶ Board or Panel Indication or Illumination
- ▶ Annunciator and Control Panels
- ▶ Telecom Switches and Central Station Equipment
- ▶ Large Panel Indicators

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-LX1210AGC-TR	HIGH	AlInGaP		610	Clear	2.0/2.2	10	160		—
SML-LX1210GGC-TR	STANDARD	GaP	Green/Green	565	Clear	2.2	10	160		—
SML-LX1210GGW-TR	STANDARD	GaP	Green	565	White Diffused	2.2	10	160		—
SML-LX1210GYC-TR	STANDARD	GaP	Green/Yellow	565	Clear	2	10	160		—
SML-LX1210IGC-TR	STANDARD	GaAsP / GaP	Red/Green	635	Clear	2.0/2.2	10	160		—
SML-LX1210IIC-TR	STANDARD	GaAsP / GaAsP	Red/Red	635	Clear	2.0	10	160		—
SML-LX1210IYC-TR	STANDARD	GaAsP	Red/Yellow	635	Clear	2	10	160		—
SML-LX1210SOUPGUSB	HIGH	AlInGaP/InGaN	RGB	605/525/470	Clear	2.0/3.3/3.3	140/200/90	120		—
SML-LX1210SRSGC-TR	STANDARD	GaAlAs / GaP	Red/ Green	660	Clear	1.8/2.2	15	160		—
SML-LX1210SRSRC-TR	STANDARD	GaAlAs	Red/Red	660	Clear	1.7/2.2	15	160		—

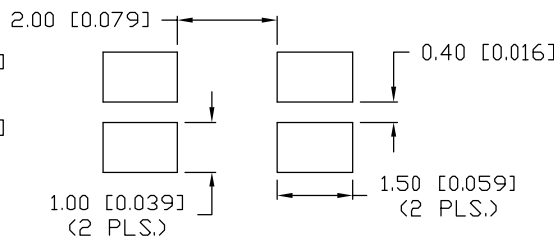
UNCONTROLLED DOCUMENT



REFLOW PROFILE



RECOMMENDED SOLDER PAD LAYOUT



\*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

PART NUMBER  
SML-LX1210SRSGC-TR

REV.  
F

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	ADDED TAPE W/POLARITY AND DIRECTION.	11.6.95
B	E.C.N. #10324.	3.17.97
C	E.C.N. #10404, & #10BRDR & REDRAWN.	5.22.98
D	E.C.N. #10695.	1.4.01
E	E.C.N. #10834.	1.25.02
F	E.C.N. #10972.	3.25.03

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

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		660 (RED)		nm	
		565 (GREEN)		nm	
FORWARD VOLTAGE (R/G)		1.7/2.2	2.2/2.6	$V_f$	
REVERSE VOLTAGE (R/G)	4.0/5.0			$V_r$	$I_r=100\mu\text{A}$
AXIAL INTENSITY (R/G)		15/10		mcd	$I_f=20\text{mA}$
VIEWING ANGLE		160		2x theta	
EMITTED COLOR:	RED/GREEN				
EPOXY LENS FINISH:	WATER CLEAR				

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	COLORS	MAX	UNITS
PEAK FORWARD CURRENT*		100	mA
STEADY CURRENT	(R/G)	30/25	mA
POWER DISSIPATION	(R/G)	80/65	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:

1. THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.

**CAUTION: MOISTURE SENSITIVE DEVICE**  
PER JEDEC LEVEL 4 STANDARDS

UNCONTROLLED DOCUMENT

REV. F PART NUMBER SML-LX1210SRSGC-TR

CONFIDENTIAL INFORMATION  
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2.7mm x 3.2mm P.C.B. SURFACE MOUNT LED, DUAL RED/GREEN CHIPS, WATER CLEAR LENS, TAPE AND REEL, 2,000 PIECES PER REEL.

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: 1.10.96  
PAGE: 1 OF 1  
SCALE: N/A