



We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 1206 Package > Flat Solder Terminals > Dome Lens

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-LXL1209SIC-TR	HIGH	AlInGaP	Red	636	Clear	2.0	600	50		—
SML-LXL1209SIC/G-TR	HIGH	AlInGaP	Red	636	Clear	2.0	2500	30		—
SML-LXL1209SOC-TR	HIGH	AlInGaP	Orange	610	Clear	2.45	1500	50		—
SML-LXL1209SRC-TR	STANDARD	GaAlAs	Red	660	Clear	1.85	480	50		—
SML-LXL1209SUGC-TR	HIGH	AlInGaP	Green	574	Clear	2.2	171	30		—
SML-LXL1209SYC-TR	HIGH	AlInGaP	Yellow	590	Clear	2.0	400	50		—
SML-LXL1209UPGC-TR	HIGH	InGaN	Green	525	Clear	3.5	1000	30		—
SML-LXL1209USBC-TR	HIGH	InGaN	Blue	470	Clear	3.5	250	50		—

UNCONTROLLED DOCUMENT

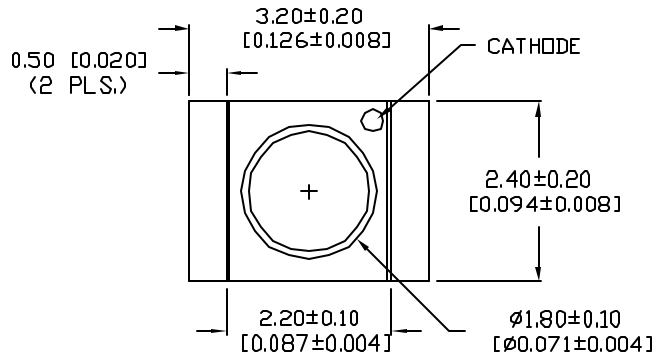
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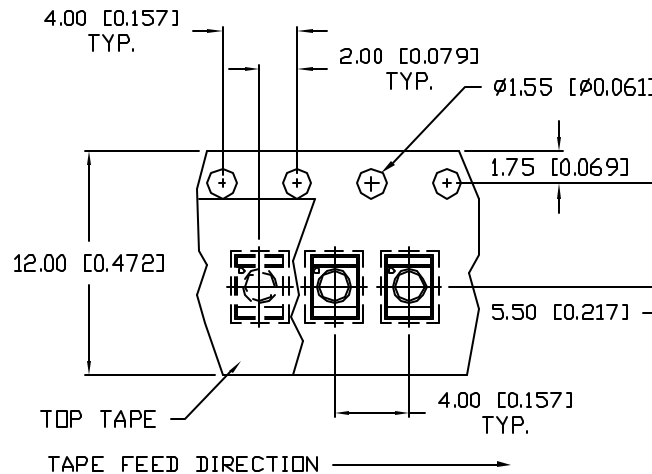
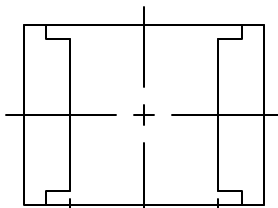
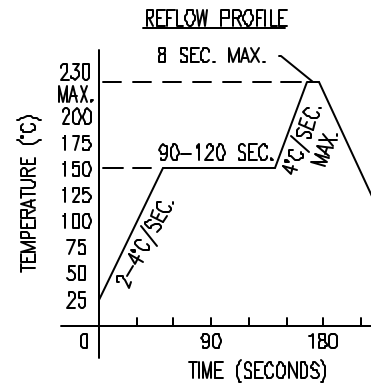
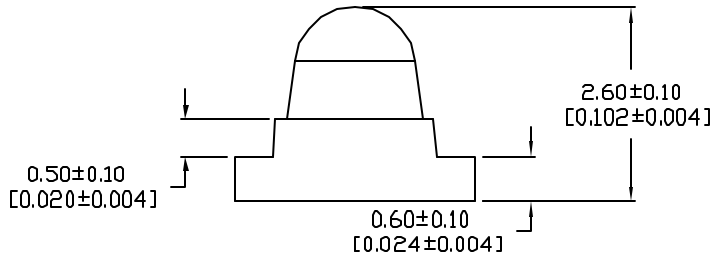
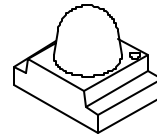
REV.

SML-LXL1209USBC-TR

PRELIMINARY IN P/N DIR



TOP VIEW POLARITY
ANODE CATHODE



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

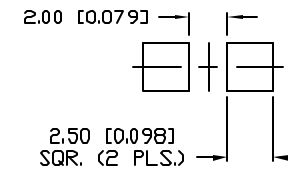
PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		470		nm	
FORWARD VOLTAGE		3.5	4.0	V_f	
REVERSE VOLTAGE	5.0			V_r	$I_f=100\mu\text{A}$
AXIAL INTENSITY		250		mcad	$I_f=20\text{mA}$
VIEWING ANGLE		50		2x theta	
EMITTED COLOR:	ULTRA SUPER BLUE				
EPOXY LENS FINISH:	WATER CLEAR				

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT*	100	mA
STEADY CURRENT	30	mA
POWER DISSIPATION	98	mW
DERATE FROM 25°C	-2.0	mW/°C
OPERATING TEMP.	-30 TO +85	°C
STORAGE TEMP.	-40 TO +85	°C

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

RECOMMENDED SOLDER PAD LAYOUT



NOTES: 2.00 [0.079]

- 1,000 PIECES PER REEL.
- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE FOR ALL COLORS. SUPER RED DEVICES ARE INSERTED 180° FROM AS SHOWN.

CAUTION: MOISTURE SENSITIVE DEVICE

1. SHELF LIFE IN SEALED BAG: 12 MONTHS AT <40°C AND <90% RELATIVE HUMIDITY (RH).
2. AFTER THIS BAG IS OPENED, DEVICES HAVE TO BE MOUNTED WITHIN 48 HOURS OR STORED AT <30% RH.

*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 SIZE=±0.05 (0.002), LEAD LENGTH=±0.75 (±0.030), MIN.=^{+0.00}/_{-0.00} DECIMAL PRECISION MAX.=^{+0.00}/_{-0.00} DECIMAL PRECISION

REV.

PART NUMBER

SML-LXL1209USBC-TR

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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.

LUMEX
INCORPORATED

DRAWN BY: CHECKED BY: APPROVED BY: DATE: 6-21-00

PAGE: 1 OF 1

SCALE: N/A

3.2mm x 2.4mm SURFACE MOUNT LED,
470nm ULTRA SUPER BLUE,
WATER CLEAR LENS, TAPE AND REEL

BC