

UNCONTROLLED DOCUMENT

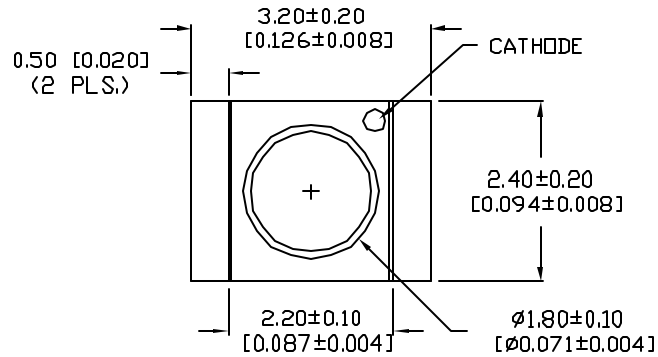
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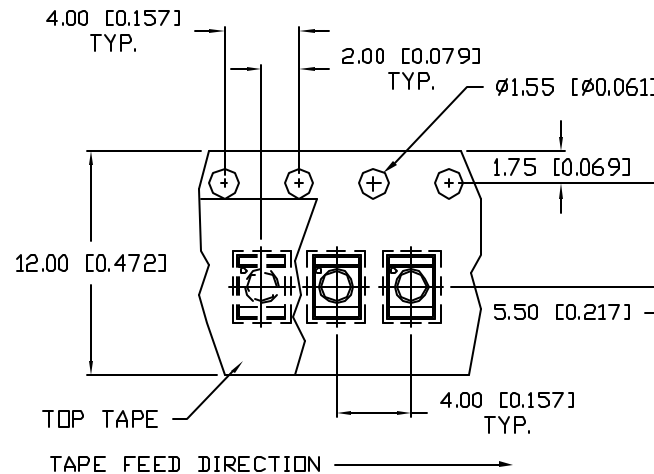
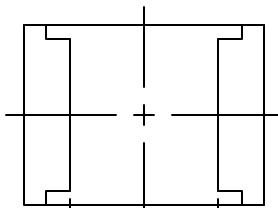
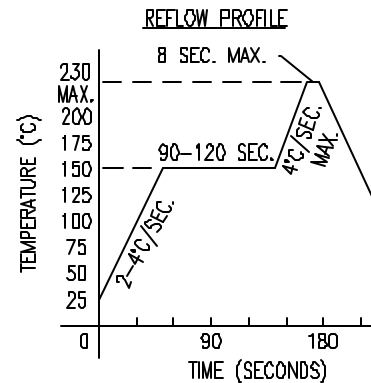
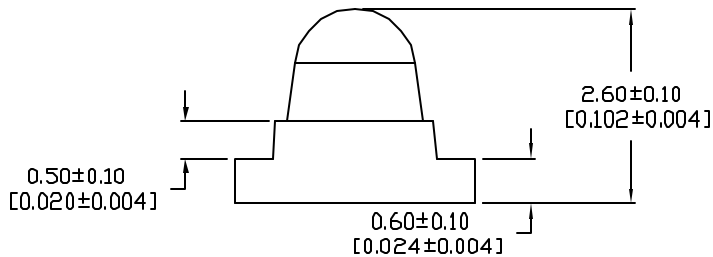
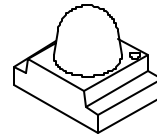
REV.

SML-LXL1209USBC-TR

PRELIMINARY IN P/N DIR



TOP VIEW POLARITY  
ANODE CATHODE



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

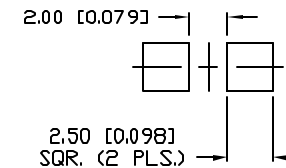
PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		470		nm	
FORWARD VOLTAGE		3.5	4.0	$V_f$	
REVERSE VOLTAGE	5.0			$V_r$	$I_f=100\mu\text{A}$
AXIAL INTENSITY		250		mcad	$I_f=20\text{mA}$
VIEWING ANGLE		50		2x theta	
EMITTED COLOR:	ULTRA SUPER BLUE				
EPOXY LENS FINISH:	WATER CLEAR				

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= <sup>+0.00</sup> -0.00 DECIMAL PRECISION MAX.= <sup>+0.00</sup> -0.00 DECIMAL PRECISION

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290 E. HELLEN ROAD  
PALATINE, ILLINOIS 60067  
PHONE: (847) 359-2790  
WEB: <http://www.lumex.com>

3.2mm x 2.4mm SURFACE MOUNT LED,  
470nm ULTRA SUPER BLUE,  
WATER CLEAR LENS, TAPE AND 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: CHECKED BY: APPROVED BY: DATE: 6-21-00

BC

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SCALE: N/A