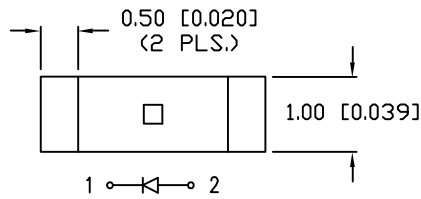


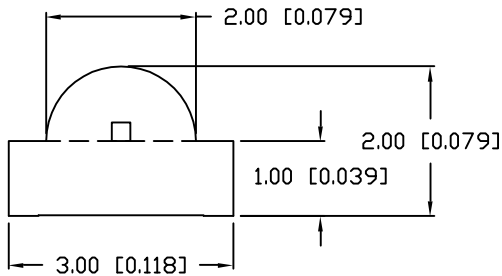
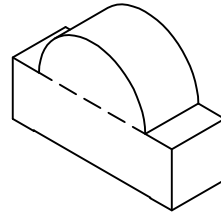
UNCONTROLLED DOCUMENT

PART NUMBER  
SML-LXR851USBC-TR

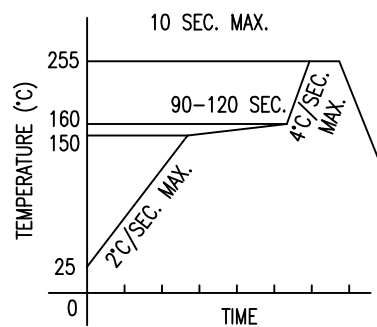
REV.  
B



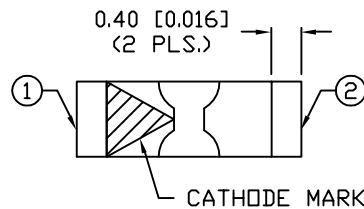
CAUTION: STATIC SENSITIVE DEVICE  
FOLLOW PROPER E.S.D. HANDLING PROCEDURES  
WHEN WORKING WITH THIS PART.



LEAD FREE REFLOW PROFILE



TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.



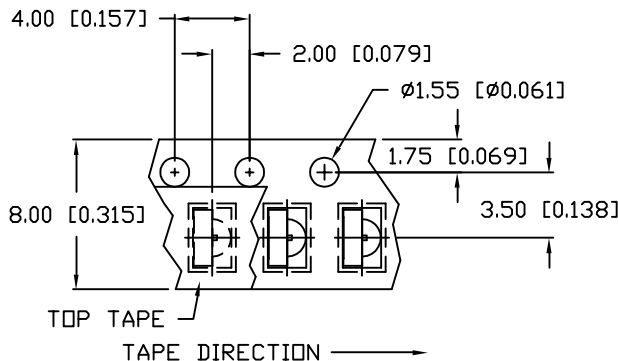
ELECTRO-OPTICAL CHARACTERISTICS  $T_A=25^\circ\text{C}$   $I_f=20\text{mA}$

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		30		mcd	$I_f=20\text{mA}$
VIEWING ANGLE		160		2x theta	
EMITTED COLOR:	ULTRA SUPER BLUE				
EPOXY LENS FINISH:	WATER CLEAR				

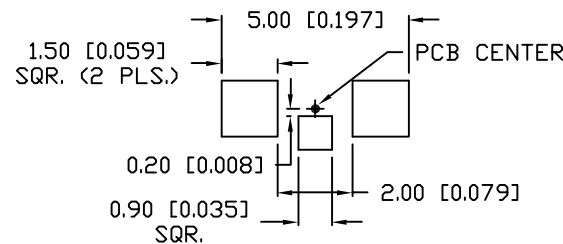
LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT*	160	mA
STEADY CURRENT	25	mA
POWER DISSIPATION	100	mW
DERATE FROM 25°C	-1.2	mW/°C
OPERATING TEMP.	-25 TO +85	°C
STORAGE TEMP.	-30 TO +85	°C

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



RECOMMENDED PAD LAYOUT



CAUTION: MOISTURE SENSITIVE DEVICE  
PER JEDEC LEVEL 4 STANDARDS

NOTES:

- 2,000 PER REEL.
- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



UNCONTROLLED DOCUMENT

\*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 MAX.= +0.00 -0.00 -DECIMAL PRECISION

REV. B PART NUMBER SML-LXR851USBC-TR

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1.0mm x 3.0mm PCB RIGHT ANGLE SURFACE MOUNT LED,  
470nm SUPER BLUE, WATER CLEAR LENS, 2K 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: BC CHECKED BY: APPROVED BY: DATE: 1.9.01  
PAGE: 1 OF 1  
SCALE: N/A