

UNCONTROLLED DOCUMENT

PART NUMBER
SML-LX0402USBC-TRREV.
C

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10967.	3.14.03
B	E.C.N. #10983 & 11148.	12.12.05
C	E.C.N. #11508.	03.05.09

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

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		463		nm	
FORWARD VOLTAGE		3.3	3.8	V_f	
REVERSE VOLTAGE	5.0			V_r	$I_r=100\mu\text{A}$
AXIAL INTENSITY		60		mcd	$I_f=20\text{mA}$
VIEWING ANGLE		120		2x theta	
EMITTED COLOR:	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	110	mW
DERATE FROM 25°C	-1.2	mW/ $^\circ\text{C}$
OPERATING TEMP.	-40 TO +85	$^\circ\text{C}$
STORAGE TEMP.	-40 TO +85	$^\circ\text{C}$

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

NOTES:

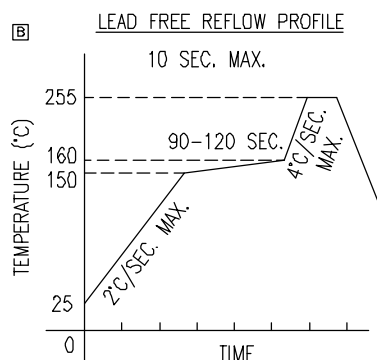
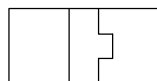
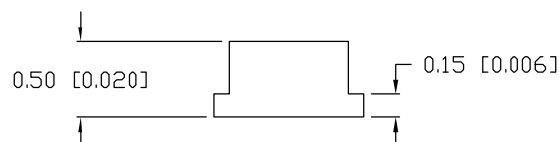
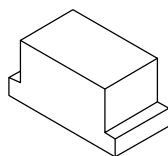
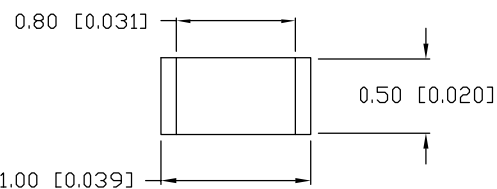
- PARTS PACKAGED IN CONDUCTIVE COVER AND CARRIER TAPE.
- THE CATHODE IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.



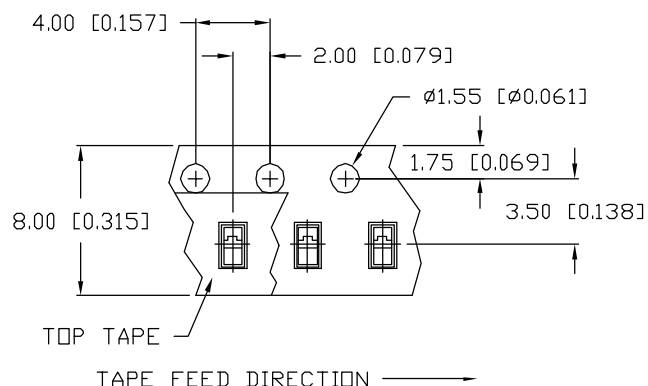
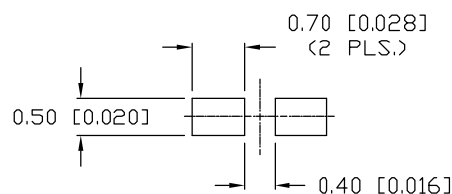
CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 3 STANDARDS

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*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

TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

RECOMMENDED SOLDER PAD LAYOUT

REV.
C

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SML-LX0402USBC-TR

1.0mm x 0.5mm SURFACE MOUNT LED,
463nm InGaN BLUE LED,
WATER CLEAR LENS, TAPE AND REEL.

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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.

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