



We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 2mm X 3mm Molded Package

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

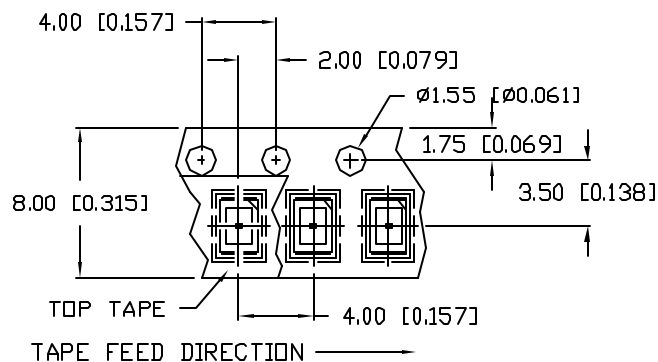
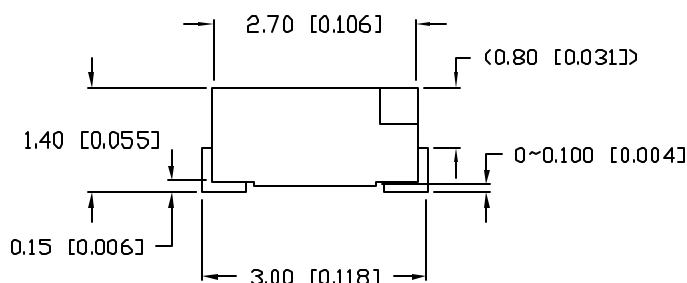
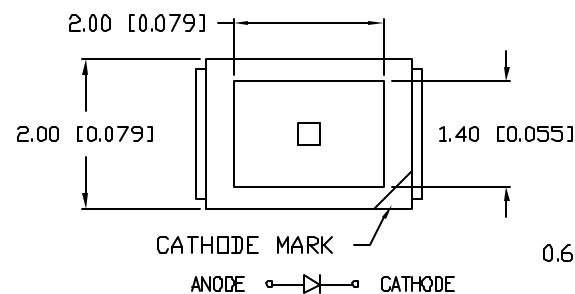
- ▶ Board or Panel Indication or Illumination
- ▶ Annunciator and Control Panels
- ▶ Telecom Switches and Central Station Equipment
- ▶ Large Panel Indicators

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-LX23AC-TR		HIGH	AlInGaP	Amber	610	Clear	2.1	30	90		—
SML-LX23GC-TR		STANDARD	GaP	Green	565	Clear	2.1	20	90		—
SML-LX23IC-TR		STANDARD	GaAsP	Red	635	Clear	2	20	90		—
SML-LX23SIC-TR		HIGH	AlInGaP	Red	636	Clear	2.0	300	90		—
SML-LX23SOC-TR		HIGH	AlInGaP	Orange	610	Clear	1.95	300	90		—
SML-LX23SRC-TR		STANDARD	GaAlAs	Red	660	Clear	1.8	150	90		—
SML-LX23SUGC-TR		HIGH	AlInGaP	Green	574	Clear	2.25	80	90		—
SML-LX23SYC-TR		HIGH	AlInGaP	Yellow	590	Clear	2.0	200	90		—
SML-LX23UPGC-TR		HIGH	InGaN	Green	525	Clear	3.5	150	90		—
SML-LX23USBC-TR		HIGH	InGaN	Blue	470	Clear	3.5	60	90		—

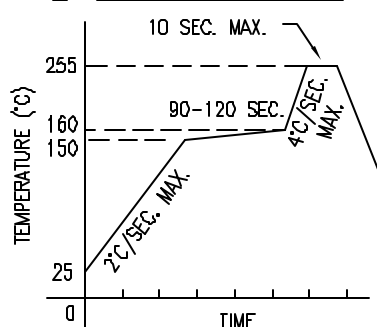
SML-LX23UWC-TR		HIGH	InGaN	White	-	Clear	3.5	150	90		
SML-LX23YC-TR		STANDARD	GaAsP	Yellow	585	Clear	2	20	90		

UNCONTROLLED DOCUMENT

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

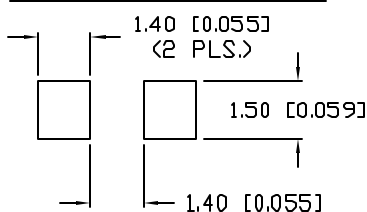


LEAD FREE REFLOW PROFILE



TOTAL TIME ABOVE 220°C IS 60 SECONDS MAX.

RECOMMENDED SOLDER PAD LAYOUT

PART NUMBER
SML-LX23UWC-TRREV.
C

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10898. & #10BRDR.	8.7.02
B	E.C.N. #10967.	3.14.03
C	E.C.N. #11148.	2.8.05

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH			550 (WHITE)		nm	
FORWARD VOLTAGE	V_f		3.5	4.0	V	$I_f=20\text{mA}$
REVERSE VOLTAGE	V_r	5			V	$I_r=10\mu\text{A}$
AXIAL INTENSITY(*1)	I_v		150		mcd	$I_f=20\text{mA}$
CHROMATICITY	X		0.31			$I_f=20\text{mA}$
COORDINATES(*2)	Y		0.32			
VIEWING ANGLE			120		2x theta	

EMITTED COLOR: WHITE

EPOXY LENS FINISH: WATER CLEAR

*1. AXIAL INTENSITY TESTING CONDITION: 550nm WAVELENGTH.

*2. THE ICI STANDARD COLORIMETRIC SYSTEM.

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	SYMBOL	MAX	UNITS
PULSE FORWARD CURRENT	I_p	100*	mA
STEADY CURRENT	I_f	30	mA
POWER DISSIPATION	P_D	120	mW
OPERATING TEMP.	T_{OPR}	-30 TO +80	°C
STORAGE TEMP.	T_{STG}	-40 TO +100	°C

*DUTY 1/10 PULSE WIDTH 10ms

NOTES:

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

CAUTION: MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 4 STANDARDS

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 -0.00, MAX.=+0.00 -DECIMAL PRECISION

REV.
CPART NUMBER
SML-LX23UWC-TR

2mm x 3mm SURFACE MOUNT WITH REFLECTOR,
550nm WHITE LED, WATER CLEAR LENS.

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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.



DRAWN BY:

CT

CHECKED BY:

APPROVED BY:

DATE: 9.28.00

PAGE: 1 OF 1

SCALE: N/A