



We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 0402 Package

**Features / Options**

**Applications / Uses**



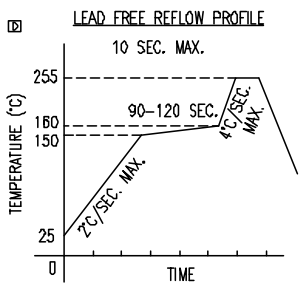
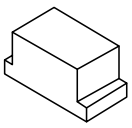
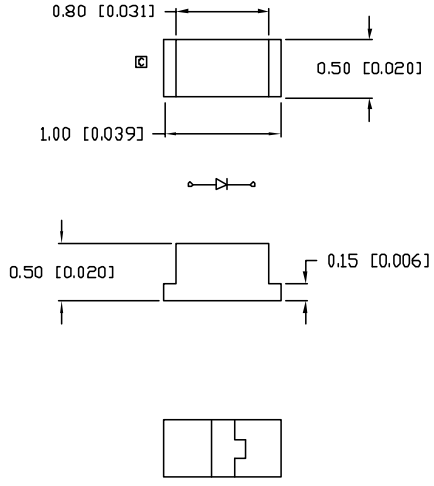
- ▶ State-of-the-Art, High Brightness Chip Technology
- ▶ Choice of Colors and Lens Finishes
- ▶ Lead Frame / Lens Casting Reliability
- ▶ Easy-to-Solder Leads, Tin Finish
- ▶ Available Bulk or on Tape and Reel
- ▶ Lead Trimming and Forming Available
- ▶ Custom Shapes, Easily Tooled, Low Minimum

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

Part Number:	SPEC	Brightness	Dice Material	Emitted Color	Peak Wavelength	Epoxy Lens	Operating Typ Vf (V)	Intensity Typ, mcd @ 20 mA	View Angle 2x Theta		
SML-LX0402DRC-TR		STANDARD	GaAlAs	Red	660	Clear	2.0	25	120		—
SML-LX0402GC-TR		STANDARD	GaP	Green	565	Clear	2.2	10	120		—
SML-LX0402SIC-TR		HIGH	AlInGaP	Red	636	Clear	2.0	140	120		—
SML-LX0402SOC-TR		HIGH	AlInGaP	Orange	610	Clear	2.0	120	120		—
SML-LX0402SUGC-TR		HIGH	AlInGaP	Green	574	Clear	2.2	45	120		—
SML-LX0402SYC-TR		HIGH	AlInGaP	Yellow	590	Clear	2.0	60	120		—
SML-LX0402UPGC-TR		HIGH	InGaN	Green	525	Clear	3.5	110	120		—
SML-LX0402USBC-TR		HIGH	InGaN	Blue	470	Clear	3.5	20	120		—
SML-LX0402YC-TR		STANDARD	GaAsP	Yellow	585	Clear	2.0	10	120		—

UNCONTROLLED DOCUMENT

PART NUMBER		REV.
SML-LX0402SYC-TR		D
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10873.	6.4.02
B	E.C.N. #10967.	3.14.03
C	E.C.N. #10983.	4.18.03
D	E.C.N. #11148.	12.03.04



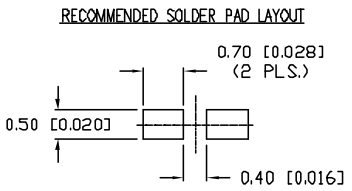
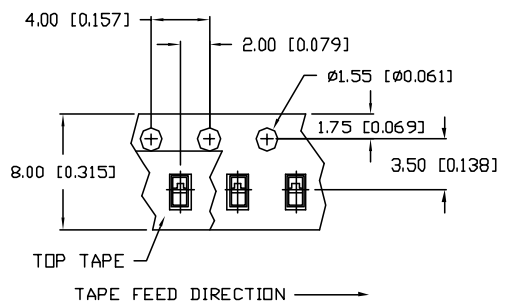
ELECTRO-OPTICAL CHARACTERISTICS  $T_A=25^{\circ}\text{C}$   $I_f=20\text{mA}$

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH		590		nm	
FORWARD VOLTAGE		2.0	2.5	V <sub>f</sub>	$I_f=100\mu\text{A}$
REVERSE VOLTAGE	5.0			V <sub>r</sub>	$I_f=20\text{mA}$
AXIAL INTENSITY		60		mcd	$I_f=20\text{mA}$
VIEWING ANGLE		120		2x theta	
EMITTED COLOR:	SUPER YELLOW				
EPOXY LENS FINISH:	WATER CLEAR				

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT*	160	mA
STEADY CURRENT	30	mA
POWER DISSIPATION	125	mW
DERATE FROM 25°C	-1.2	mW/°C
OPERATING TEMP.	-40 TO +85	°C
STORAGE TEMP.	-40 TO +85	°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 4 STANDARDS

UNCONTROLLED DOCUMENT

\*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.038), 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=+DECIMAL PRECISION MAX=-DECIMAL PRECISION

REV.	PART NUMBER
D	SML-LX0402SYC-TR

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1.0mm x 0.5mm SURFACE MOUNT LED,  
 590nm SUPER YELLOW LED,  
 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:
CT			9.11.01
			PAGE: 1 OF 1
			SCALE: N/A