



We Tame Photons to Work for You!



Products > LEDs > Surface Mount > 2832 Package



### Features / Options

- ▶ 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

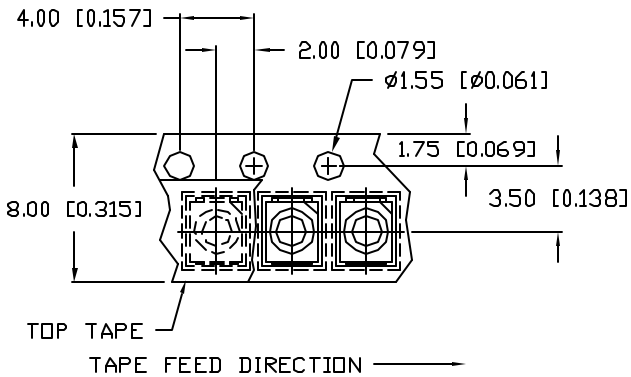
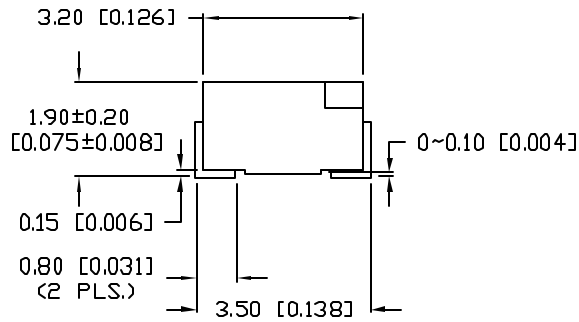
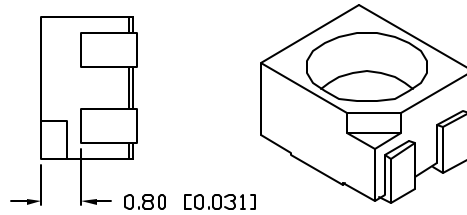
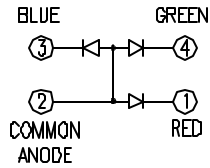
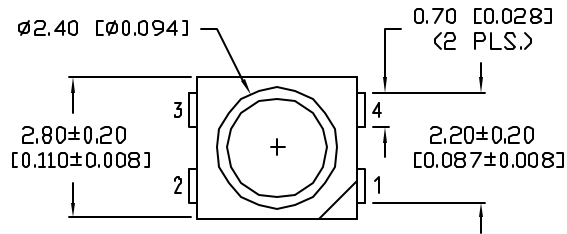
### Applications / Uses

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

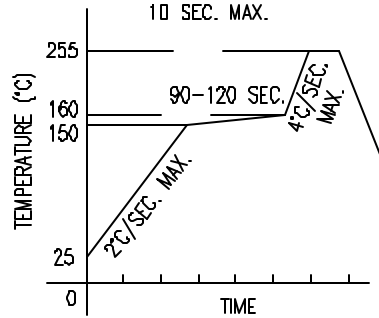
Part Number:	Brightness	Dice Material	Emitted Color	Peak Wavelength	Epoxy Lens	Operating Typ Vf (V)	Intensity Typ, mcd @ 20 mA	View Angle 2x Theta		
SML-LX2832DRC-TR	STANDARD	GaAlAs	Red	660	Clear	2.0	40	120		—
SML-LX2832GC-TR	STANDARD	GaP	Green	565	Clear	2.1	25	120		—
SML-LX2832GYC-TR	STANDARD	GaP	Green/Yellow	565	Clear	2.2/2.1	15	120		—
SML-LX2832IC-TR	STANDARD	GaAsP	Red	635	Clear	2	25	120		—
SML-LX2832IGC-TR	STANDARD	GaAsP / GaP	Red/Green	635	Clear	2.0/2.1	25	120		—
SML-LX2832IYC-TR	STANDARD	GaAsP / GaAsP	Red/Yellow	635	Clear	2.0/2.1	25	120		—
SML-LX2832LGC-TR	STANDARD	GaP	Green	565	Clear	2.1	25	120		—
SML-LX2832LIC-TR	STANDARD	GaAsP	Red	635	Clear	2.0	25	120		—
SML-LX2832LYC-TR	STANDARD	GaAsP	Yellow	585	Clear	2.1	15	120		—
SML-LX2832PGC-TR	STANDARD	GaP	Green	555	Clear	2.1	15	120		—

SML-LX2832SGC-TR		STANDARD	GaP	Green	565	Clear	2.1	28	120		—
SML-LX2832SIC-TR		HIGH	AlInGaP	Red	636	Clear	2.0	250	120		—
SML-LX2832SISUGCTR		HIGH	AlInGaP	Red/Green	636	Clear	2.0	60	120		—
SML-LX2832SISUGSBC		HIGH	AlInGaP	Red/Green	636	Clear	2.0/2.2/3.5	80	120		—
SML-LX2832SOC-TR		HIGH	AlInGaP	Orange	610	Clear	2.0	300	120		—
SML-LX2832SRC-TR		STANDARD	GaAlAsP	Red	660	Clear	1.8	100	120		—
SML-LX2832SRC/B-TR		STANDARD	GaAlAs	Red	660	Clear	1.7	65	120		—
SML-LX2832SRC/C-TR		STANDARD	GaAlAs	Red	660	Clear	1.7	100	120		—
SML-LX2832SRGSBTR		STANDARD	GaAlAs / GaP / InGaN/SiC	RGB	660	Clear	1.8/2.2/3.5	110	120		—
SML-LX2832SRUGUSB		STANDARD	GaAlAs	Red/Green	660	Clear	1.7/2.2/3.5	110	120		—
SML-LX2832SUGC-TR		HIGH	AlInGaP	Green	574	Clear	2.2	150	120		—
SML-LX2832SUGSICTR		HIGH	AlInGaP	Green/Red	574	Clear	2.0	25	120		—
SML-LX2832SYC-TR		HIGH	AlInGaP	Yellow	590	Clear	2.0	140	120		—
SML-LX2832SYSUGCTR		HIGH	AlInGaP	Yellow/Green	590	Clear	2.0	60	120		—
SML-LX2832UPGC-TR		HIGH	InGaN	Green	525	Clear	3.5	170	120		—
SML-LX2832USBC-TR		HIGH	InGaN	Blue	470	Clear	3.5	60	120		—
SML-LX2832UWC-TR		HIGH	InGaN	White	-	Clear	3.5	150	120		—
SML-LX2832YC-TR		STANDARD	GaAsP	Yellow	585	Clear	2.1	15	120		—
SML-LX2832YGC-TR		STANDARD	GaAsP / GaP	Yellow/Green	585	Clear	2.1	15	120		—
SML-LX2832ZIC-TR		HIGH	AlInGaP	Red	630	Clear	2.4	800	120		—

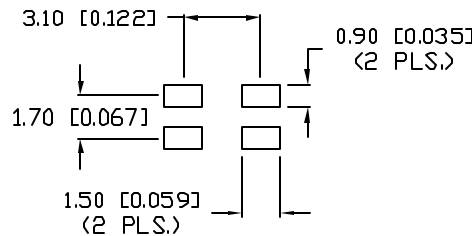
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LEAD FREE REFLOW PROFILE



RECOMMENDED SOLDER PAD LAYOUT



PART NUMBER		REV.
SML-LX2832SISUGSBC		B
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10967.	3.14.03
B	E.C.N. #11148.	6.5.05

ELECTRO-OPTICAL CHARACTERISTICS $T_A=25^\circ\text{C}$ $I_f=20\text{mA}$					
PARAMETER	RED	GREEN	BLUE	UNITS	TEST COND
PEAK WAVELENGTH	636	574	430	nm	
FORWARD VOLTAGE (TYP.)	2.0	2.2	3.5	$V_f$	
FORWARD VOLTAGE (MAX.)	2.4	2.6	4.5	$V_f$	
REVERSE VOLTAGE	5.0	5.0	5.0	$V_r$	$I_f=100\mu\text{A}$
AXIAL INTENSITY	80	60	60	mcd	$I_f=20\text{mA}$
VIEWING ANGLE	120	120	120	2x theta	
LED POSITION:	1	2	3		
EPOXY LENS FINISH: WATER CLEAR					

LIMITS OF SAFE OPERATION AT 25°C PER CHIP

PARAMETER	COLORS	MAX	UNITS
PEAK FORWARD CURRENT*	(R/G/B)	160/160/100	mA
STEADY CURRENT	(R/G/B)	25/25/30	mA
POWER DISSIPATION		120	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:

- THE POLARITY MARK IS ORIENTED TOWARDS THE TAPE SPROCKET HOLE.

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

CAUTION: MOISTURE SENSITIVE DEVICE  
PER JEDEC LEVEL 4 STANDARDS

UNCONTROLLED DOCUMENT

\*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><sub>-0.00</sub> MAX.=<sup>+0.00</sup><sub>-0.00</sub>

REV. B	PART NUMBER SML-LX2832SISUGSBC	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC, THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	
2.8mm x 3.2mm SURFACE MOUNT WITH REFLECTOR CUP, SUPER INTENSITY RED, SUPER ULTRA GREEN, 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: GB CHECKED BY: APPROVED BY: DATE: 6.4.02 PAGE: 1 OF 1 SCALE: N/A