



We Tame Photons to Work for You!



Products > High Power LEDs > AstraLED

Features / Options

Applications / Uses



- ▶ State-of-the-Art, High Brightness Chip Technology
- ▶ Choice of Colors and Lens Finishes
- ▶ Easy-to-Solder Leads, Tin Finish
- ▶ SMT package eliminates thru-hole soldering
- ▶ Very Long Operational Life

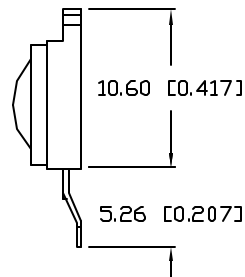
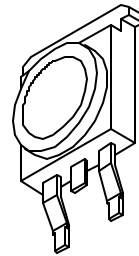
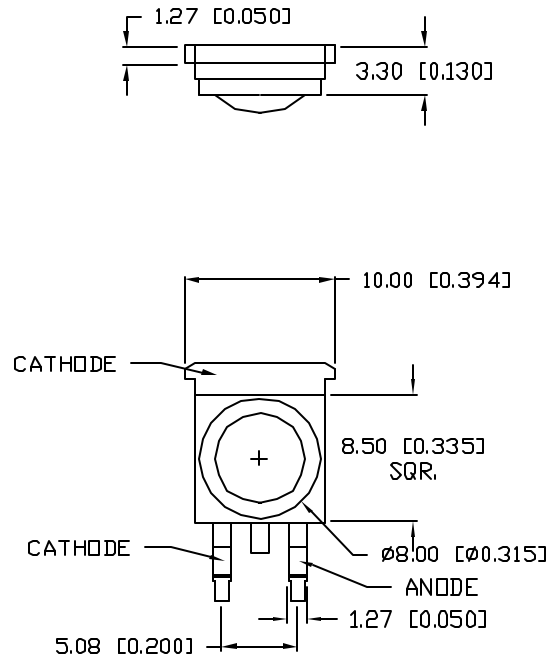
- ▶ LCD Backlighting
- ▶ Illuminating Signs/Artwork
- ▶ Decorative Lighting
- ▶ Warning and Alarm Lights

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-LX1610SIC	HIGH	AlInGaP	Red	625	Clear	2.1	22 lm	70	n/a	—
SML-LX1610SIC/A	HIGH	AlInGaP	Red	625	Clear	2.1	22 lm	110	n/a	—
SML-LX1610SYC	HIGH	AlInGaP	Yellow	590	Clear	2.1	22 lm	70	n/a	—
SML-LX1610SYC/A	HIGH	AlInGaP	Yellow	590	Clear	2.1	22 lm	110	n/a	—
SML-LX1610UPGC	HIGH	InGaN	Green	525	Clear	3.5	25 lm	70	n/a	—
SML-LX1610UPGC/A	HIGH	InGaN	Green	525	Clear	3.5	25 lm	110	n/a	—
SML-LX1610USBC	HIGH	InGaN	Blue	470	Clear	3.5	5 lm	70	n/a	—
SML-LX1610USBC/A	HIGH	InGaN	Blue	470	Clear	3.5	5 lm	110	n/a	—
SML-LX1610UWC	HIGH	InGaN	White	-	Clear	3.5	30 lm	70	n/a	—
SML-LX1610UWC/A	HIGH	InGaN	White	-	Clear	3.5	30 lm	110	n/a	—

UNCONTROLLED DOCUMENT

PART NUMBER
SML-LX1610UWC

REV.



ELECTRO-OPTICAL CHARACTERISTICS $T_A=25^\circ\text{C}$ $I_f=350\text{mA}$

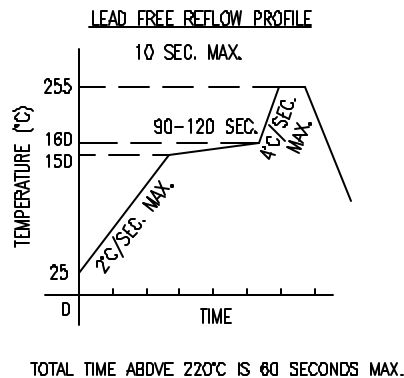
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH			-		nm	
FORWARD VOLTAGE	V_f		3.5	4.0	V	$I_f=350\text{mA}$
REVERSE VOLTAGE	V_r	5			V	$I_f=10\mu\text{A}$
AXIAL INTENSITY(*1)	I_v		30		lm	$I_f=350\text{mA}$
COLOR TEMP.		3000		9000		$I_f=350\text{mA}$
VIEWING ANGLE			70		2x theta	
EMITTED COLOR:					WHITE	
EPOXY LENS FINISH:					WATER CLEAR	

*1. AXIAL INTENSITY TESTING CONDITION: 550nm WAVELENGTH.
*2. THE ICI STANDARD COLORIMETRIC SYSTEM.

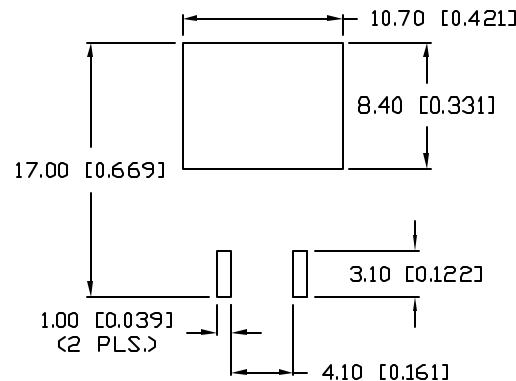
LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	SYMBOL	MAX	UNITS
PULSE FORWARD CURRENT	I_p	500	mA
STEADY CURRENT	I_F	350	mA
POWER DISSIPATION	P_D	1.5	W
OPERATING TEMP.	T_{OPR}	-20 TO +70	°C
STORAGE TEMP.	T_{STG}	-40 TO +85	°C

*DUTY 1/10 PULSE WIDTH 10ms



SOLDER PAD LAYOUT



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



NOTES:

1. 50 PCS. IN EACH TUBE.

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.=^{+0.00}/_{-0.00} MAX.=^{+0.00}/_{-0.00} DECIMAL PRECISION

REV.

PART NUMBER

SML-LX1610UWC

10.60 x 10mm HIGH POWER LED, ULTRA WHITE.

CONFIDENTIAL INFORMATION

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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:

JD

CHECKED BY:

APPROVED BY:

DATE: 8.31.06

PAGE: 1 OF 1

SCALE: N/A