

SMART

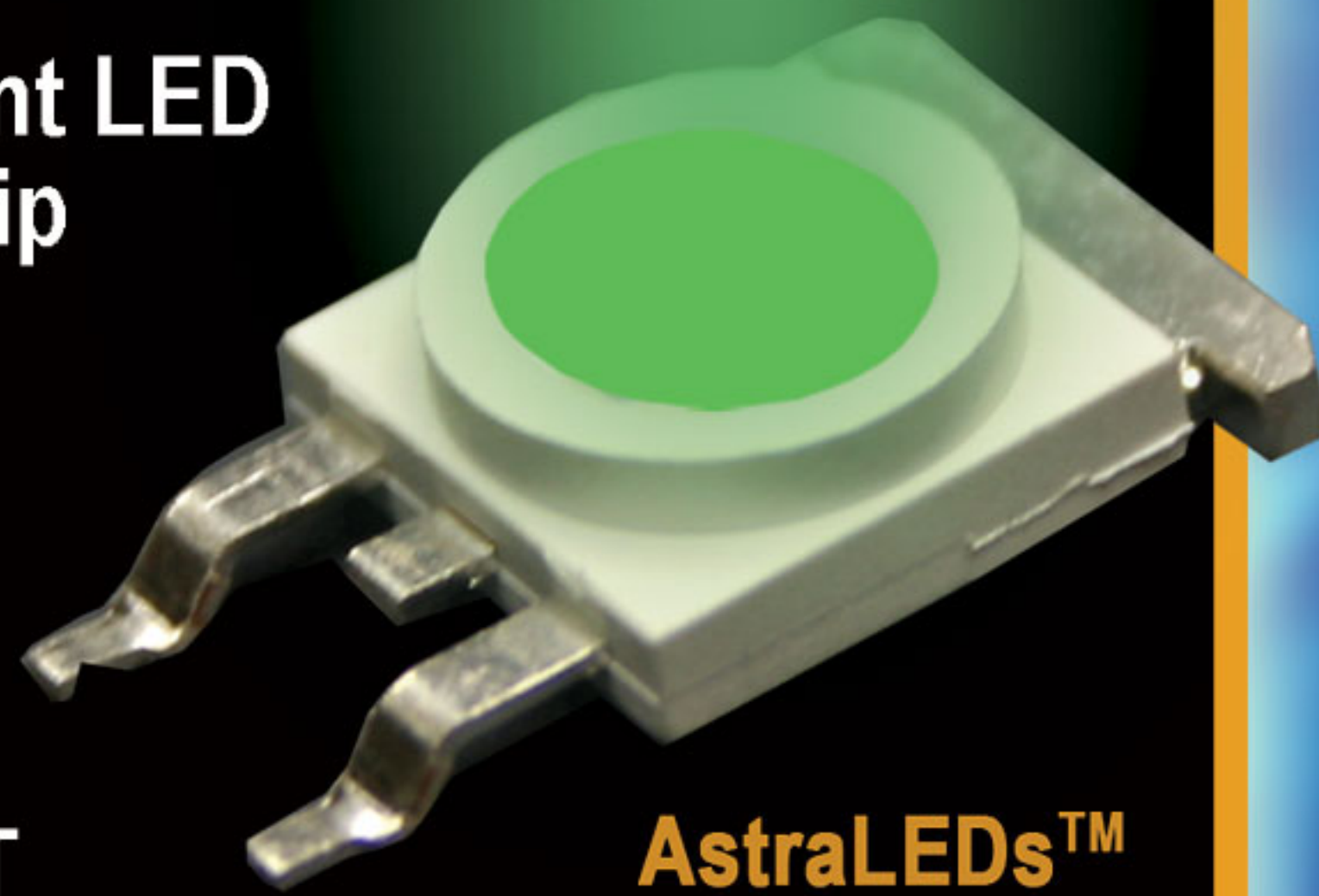
SOLUTION

The Problem

The market badly needed a single unit high output LED that does not require additional expensive substrate or heat-sinking in an SMT form.

Lumex's SMART Solution

A high power 1W surface mount LED using an LED chip approximately 4 times the size of a standard LED chip for use in an off-the-shelf SMT LED plus a built-in heat management system so that the unit can be driven at a steady current of 350mA.



The Benefits

The LED produces a very high output of 30 lumens without spending additional cost on heatsink or other substrates to cool down high power LEDs and using conventional SMT assembly.

Applications

- Backlighting
- Automotive Lighting
- Decorative Lighting
- Interior/Exterior Lighting
- Architectural Lighting

Click Here for
Solution Part Number SML-LX1610
Available Now.

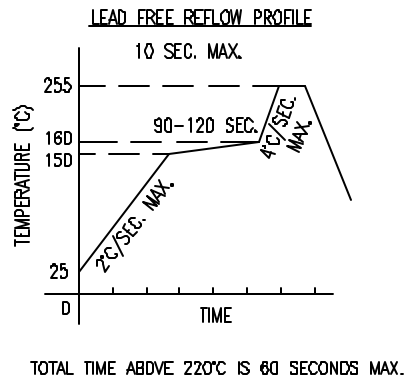
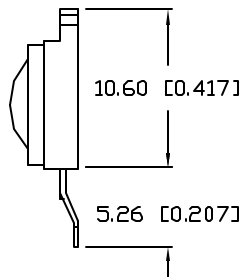
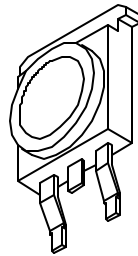
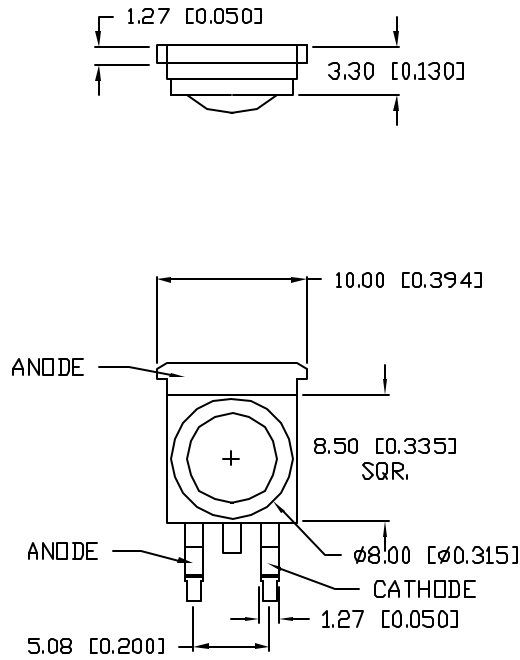


We Tame Photons to Work for You!

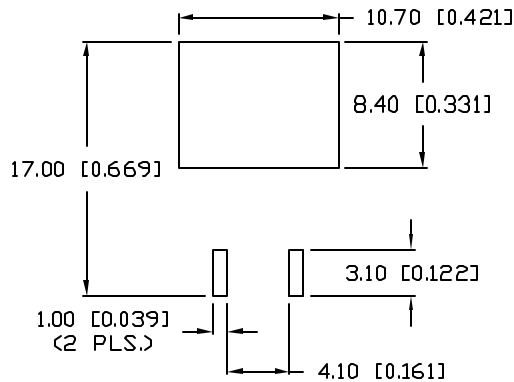
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UNCONTROLLED DOCUMENT



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.



PART NUMBER		REV.
SML-LX1610SIC		A
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #11391.	01.16.07

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH			625		nm	
FORWARD VOLTAGE	V_f		2.1	3.2	V	$I_f=350\text{mA}$
REVERSE VOLTAGE	V_r	5			V	$I_r=10\mu\text{A}$
AXIAL INTENSITY(*1)	I_v		22		lm	$I_f=350\text{mA}$
VIEWING ANGLE			70		2x theta	
EMITTED COLOR:	RED					
EPOXY LENS FINISH:	WATER CLEAR					

LIMITS OF SAFE OPERATION AT 25°C

PARAMETER	SYMBOL	MAX	UNITS
PULSE FORWARD CURRENT	I_p	400	mA
STEADY CURRENT	I_F	350	mA
POWER DISSIPATION	P_D	1.1	W
OPERATING TEMP.	T_{OPR}	-20 TO +70	°C
STORAGE TEMP.	T_{STG}	-40 TO +85	°C

*DUTY 1/10 PULSE WIDTH 10ms

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

REV.	PART NUMBER	CONFIDENTIAL INFORMATION		290 E. HELEN ROAD	
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10.60 x 10mm HIGH POWER LED, 625nm RED LED.		RELIABILITY NOTE		PHONE: +1.847.359.2790	
		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.		US WEB: www.lumex.com	
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		DRAWN BY: JC		DATE: 8.31.06	
		CHECKED BY:		PAGE: 1 OF 1	
		APPROVED BY:		SCALE: N/A	