

SMART

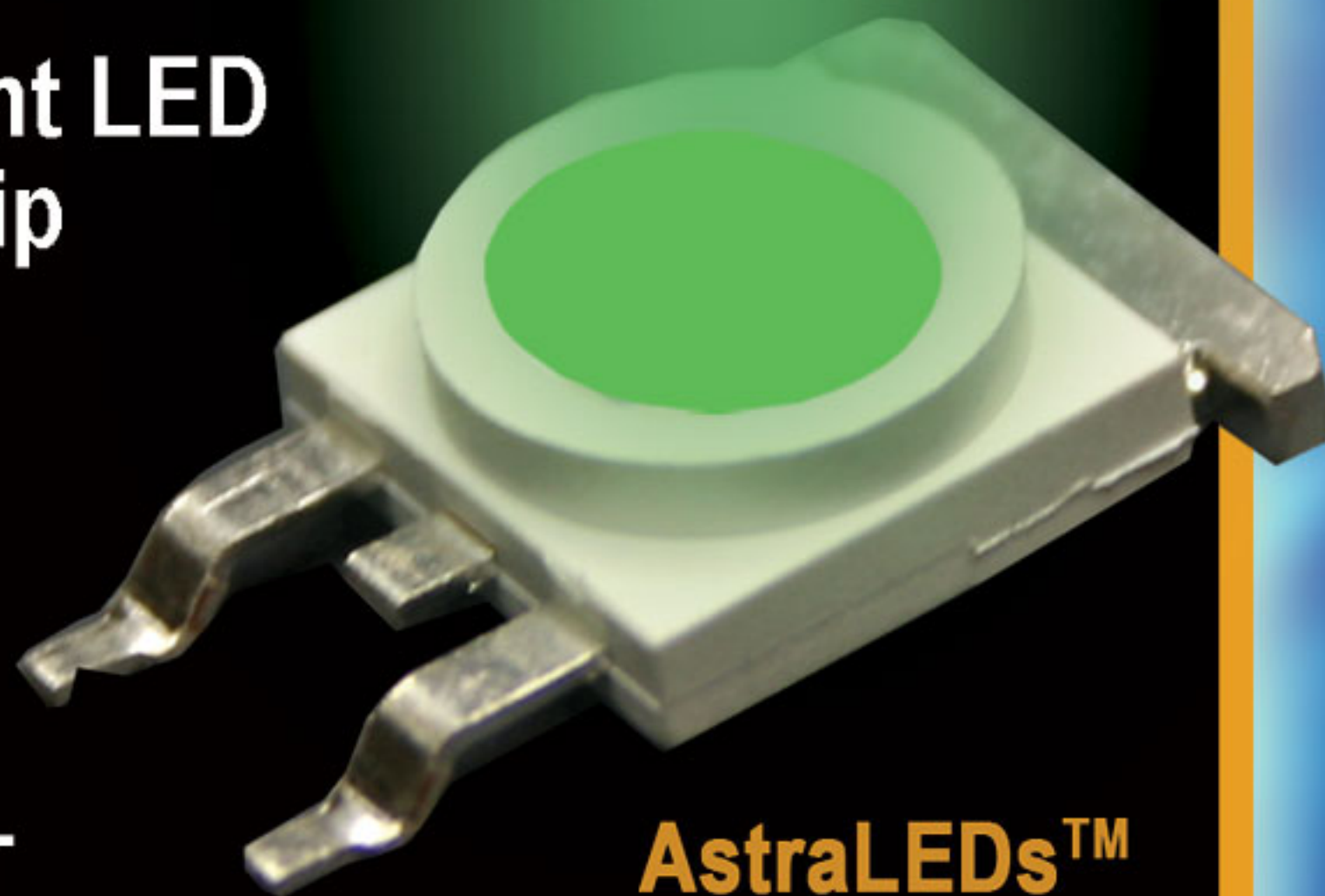
SOLUTION

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.

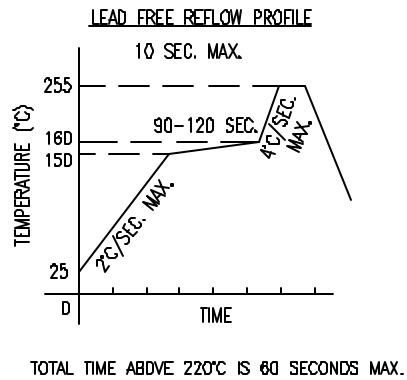
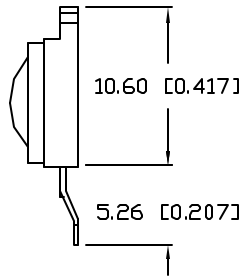
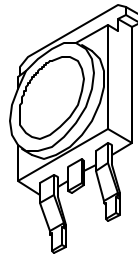
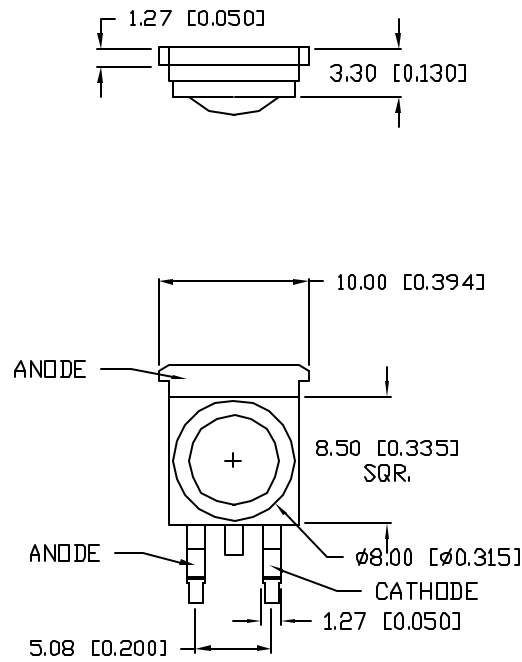


We Tame Photons to Work for You!

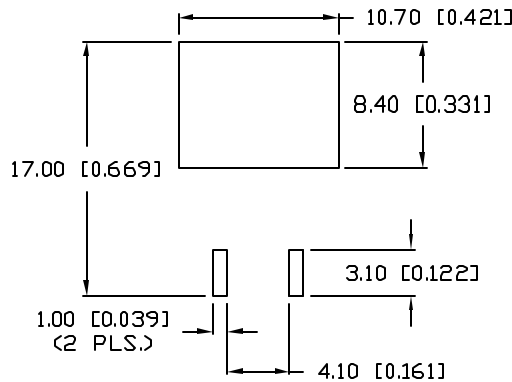
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UNCONTROLLED DOCUMENT



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 PALATINE, IL 60067-6976 PHONE: +1.847.359.2790 US WEB: www.lumex.com TW WEB: www.lumex.com.tw
A	SML-LX1610SIC	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.			
10.60 x 10mm HIGH POWER LED, 625nm RED LED.		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: JC	CHECKED BY:
				APPROVED BY:	DATE: 8.31.06 PAGE: 1 OF 1 SCALE: N/A