

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









## Cree XTE Series

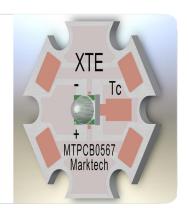
Designed to accelerate LED lighting adoption, the XTE LED delivers up to 148 lumens and 148 lumens per watt in cool white (6000K) or up to 114 lumens and 114 lumens per watt in warm white (3000K), both at 350 mA and 85°C.

#### **FEATURES**

- > CW Efficacy of up to 148lm/W (@85°C, 350mA)
- > Wide Viewing Angle: 115--140°
- > Thermal Resistance: 5°C/W
- > Maximum Drive Current: 1.5A

#### **APPLICATIONS**

- > Non-Directional
- > Directional
- > Downlight
- > Consumer Portable



Flux Characteristics (T <sub>i</sub> =85°CWhite)				
COLOR TEMPERATURE	CCT (TYP.)(°K)*	MIN.FLUX (LM) @350MA	KIT USED	
Cool White	60006500	130	0G51	
Neutral White	47505000	122	0GE3	
Warm White	30003250	100	LAE7	

\*See Cree Specifications

*Absolute Maximum Ratings (Note 1)					
ITEMS	SYMBOL	RATING	UNIT		
Forward Current (Note 2)	I <sub>F</sub>	1500	mA		
Forward Voltage (@350mA, 85°C)	$V_{F}$	3.4	V		
Reverse Voltage	$V_R$	-5.0	V		
Temperature Coefficient of Forward Voltage	$V_{TC}$	-2.5	mV/°C		
Operating Temperature at $T_{\rm C}$ Point (Note 2&3)	T <sub>OPR</sub>	100	°C		
Junction Temperature	$T_J$	150	0C		
ESD Classification (HBM per MIL-STD-883D)		Class 2			

- \* Exceeding maximum ratings may damage the LED and cause potential safety hazards.
- \* Elevated operating temperatures can be expected to negatively impact the service life (lumen output)
- \* All data is related to entire assembly. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process.
- \* End users need to take into account the lumen depreciation as the temperature rises with various thermal solutions installed.
- \* It is highly recommended for the user to review the CREE XTE Series page for additional and most recent technical data at http://www.cree.com/led-components-and-modules/products/xlamp/discrete-directional/xlamp-xte-white

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- Note 1: Using continuously under elevated loads (i.e. the application of high temperature/current/voltage or a significant change in temperature, etc.) may cause this product to significantly decrease in reliability even if the operating conditions are within the absolute maximum ratings.
- Note 2: The thermal resistance from the LED junction to ambient temperature, Rth(j-a), should be kept below 10°C/W so that the LED is not exposed to a condition beyond the absolute maximum ratings.
- Note 3: The temperature of the LED assembly must be measured at the  $T_c$ -point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

### Hardware (not included)

- > Mount with #4 Machine Screws.
- > 16AWG Maximum Wire Gauge.
- > Use only with constant current power supplies.

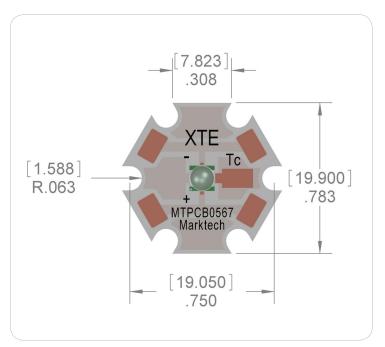
#### **PCB** Fabrication

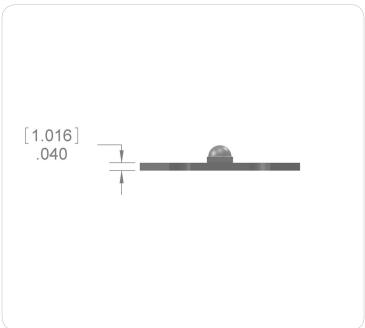
> Layer Count: 1

Core Material: 6061-T6 AluminumSingle Layer Copper Weight: 1oz

> Solder Mask: White

> Finishing Plating: Pb Free HASL





The information contained herein is subject to change without notice.

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