

## 阅读申明

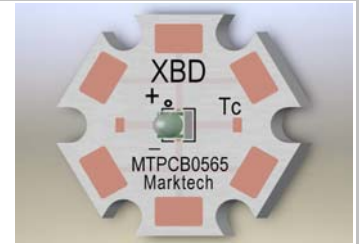
- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

## Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

## Cree XB-D Color Series

Cree XLamp XB-D color LEDs extend the double lumens-per-dollar performance of the XB package to color LEDs, delivering up to 40% higher maximum light output than XP-E color LEDs. The combination of performance and small size of XB-D color LEDs enable better color mixing and lower system cost.



### FEATURES

- > Cree's smallest lighting class LED: 2.45 x 2.45 mm
- > 1A Maximum Drive Current
- > Wide viewing angle: 115°(white) to 140° (red)
- > Electrically Neutral Thermal Path

### APPLICATIONS

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

### FLUX CHARACTERISTICS @ 85°C

COLOR	DWL (nm)	MIN.FLUX (LM) @350MA	KIT USED
Blue	465-485	35.2	0Z01
Green	520-535	93.9	0B01
Red-Orange	610-620	80.6	0901
Red	620-630	67.2	0701

CHARACTERISTICS	UNIT	MINIMUM	TYPICAL	MAXIMUM
Thermal resistance, junction to solder point - white, royal blue, blue	°C/W		6.5	
Thermal resistance, junction to solder point - green	°C/W		11	
Thermal resistance, junction to solder point - amber	°C/W		7	
Thermal resistance, junction to solder point - red-orange, red	°C/W		5	
Viewing angle (FWHM) - white	degrees		115	
Viewing angle (FWHM) - royal blue, blue, green	degrees		135	
Viewing angle (FWHM) - amber, red-orange, red	degrees		140	
Temperature coefficient of voltage - white	mV/°C		-2.5	
Temperature coefficient of voltage - royal blue, blue, green	mV/°C		-3.3	
Temperature coefficient of voltage - amber, red-orange, red	mV/°C		-2	
ESD classification (HBM per Mil-Std-883D)			Class 2	
DC forward current	mA			1000
Reverse voltage	V			-5
Forward voltage (@ 350 mA, 85 °C) - white	V		2.9	3.5
Forward voltage (@ 350 mA, 25 °C) - royal blue, blue	V		3.1	3.7
Forward voltage (@ 350 mA, 25 °C) - green	V		3.3	3.9
Forward voltage (@ 350 mA, 25 °C) - amber, red-orange, red	V		2.25	2.6
LED junction temperature	°C			150

It is highly recommended for the user to review the CREE XBD Series page for additional and most recent technical data at:  
<http://www.cree.com/led-components-and-modules/products/xlamp/discrete-directional/xlamp-xbd>

- \* 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.

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,  $R_{th(j-a)}$ , should be kept below 100C/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 TC-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 Aluminum
- > Single Layer Copper Weight: 1oz
- > Solder Mask: White
- > Finishing Plating: Pb Free HASL