

Cree XQ-D White Series on Board

The XLamp XQ-D LEDs delivers the unique combination of small size, reliability and novel light distribution. This combination of features enable the next generation of designs for applications that require broader light distribution, such as omnidirectional lamps and fixtures.



FEATURES

- > Cree's smallest lighting class: 1.6 x 1.6 x 1.6 mm
- > Wide viewing angle: 145°
- > 700 mA maximum drive current

APPLICATIONS

- > Non-Directional
- > Distributed
- > Exterior Area
- > Landscape

FLUX CHARACTERISTICS

COLOR	CCT (TYP.)	MIN.FLUX (LM) @350MA	KIT USED
Cool White	6000K	122	LF53
Neutral White	4000K	114	BEE5
Warm White	3000K	107	BDE7

CHARACTERISTICS	UNIT	MINIMUM	TYPICAL	MAXIMUM
Viewing angle (FWHM)	degrees		145	
Thermal Resistance, Junction to Solder Point	°C/W		7.5	
ESD classification (HBM per Mil-Std-883D)			Class 1	
DC forward current	mA		350	700
Reverse voltage	V			-5
Forward voltage (@ 80 mA, 25 °C)	V		3.1	3.5
Temperature coefficient of voltage	mV/°C		-3	

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

- * 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

