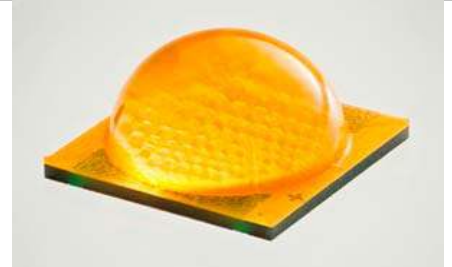


**Cree MT-G2 Series**

The first EasyWhite LED array built on the SC<sup>3</sup> Technology Platform, Cree's XLamp MT-G2 LED pushes performance limits to redefine lumen levels and efficacy while delivering the industry's best color consistency and superior optical control. The MT-G2 LED delivers up to 1987 lumens in cool white and 1735 lumens in warm white, both at 18.5 watts, 85°C.


**FEATURES**

- > Cree EasyWhite color temp from 2700K to 5000K
- > 85°C binning and characterization
- > UL- recognized component (E349212)
- > Electrically Neutral Thermal Path

**APPLICATIONS**

- > Directional
- > Downlight

**FLUX CHARACTERISTICS @ 85°C**

COLOR	CCT (TYP.)	MIN.FLUX (LM) @350MA	KIT USED
Warm White	2700K	600	J027F
Neutral White	5000K	750	N050F

CHARACTERISTICS	UNIT	MINIMUM	TYPICAL	MAXIMUM
Viewing angle (FWHM)	degrees		115	
Effective Thermal Resistance, Junction to Solder Point	°C/W		1.5	
ESD classification (HBM per Mil-Std-883D)			Class 2	
LED junction temperature	°C			150
DC forward current (6V)	mA			3000
DC forward current (9V)	mA			2000
DC forward current (36V)	mA			500
Forward voltage (6V, 1000 mA, 85 °C)	V		5.7	
Forward voltage (6V, 1000 mA, 25 °C)	V			7
Forward voltage (9V, 735 mA, 85 °C)	V		8.55	
Forward voltage (9V, 735 mA, 25 °C)	V			10.5
Forward voltage (36V, 185 mA, 85 °C)	V		34.2	
Forward voltage (36V, 185 mA, 25 °C)	V			42
Temperature coefficient of voltage (6V)	mV/°C		-4	
Temperature coefficient of voltage (9V)	mV/°C		-6	
Temperature coefficient of voltage (36V)	mV/°C		-26	
Reverse voltage	V			-5
Reverse Current	A			0.1

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/arrays-directional/xlamp-mtg2-easywhite>

- \* 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  $10^{\circ}\text{C/W}$  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 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

