



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!



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**Cree ML-E Color Series on Linear Board**

The lighting class 1/2-watt XLamp ML-E LED brings high performance and a smooth look to a wide range of lighting applications, including linear lighting, LED replacement lamps, fluorescent retrofits and retail-display lighting.


**FEATURES**

- > Available in royal blue, blue, green, amber & red
- > Wide Viewing Angle: 125°
- > Electrically Neutral Thermal Path

**APPLICATIONS**

- > Vehicle
- > Landscape
- > Consumer Portable
- > High End Portable
- > Architectural

**FLUX CHARACTERISTICS (per LED)**

COLOR	DWL (nm)	MIN.FLUX (LM) @350MA	KIT USED
Blue	465-485	10.7	0T01
Green	520-535	30.6	O001
Red	620-630	18.1	0V01
Amber	585-595	30.6	O001
Royal Blue	450-465	175 (@150 mA)	O502

CHARACTERISTICS	UNIT	MINIMUM	TYPICAL	MAXIMUM
Thermal Resistance, Junction to Solder Point- white, royal, blue	°C/W		11	
Thermal Resistance, Junction to Solder Point- green, red	°C/W		15	
Thermal Resistance, Junction to Solder Point- amber	°C/W		24	
Viewing angle (FWHM)- royal, blue, green, amber, red	degrees		125	
Temperature coefficient of voltage- royal, blue	mV/°C		-3.3	
Temperature coefficient of voltage- green	mV/°C		-4	
Temperature coefficient of voltage- red	mV/°C		-1.8	
Temperature coefficient of voltage- amber	mV/°C		-1	
ESD classification (HBM per Mil-Std-883D)			Class 2	
DC forward current- royal, blue, green, red	mA			350
DC forward current- amber	mA			250
Reverse voltage	V			-5
Forward voltage (@ 150 mA)- royal, blue	V		3.2	
Forward voltage (@ 150 mA)- green	V		3.45	
Forward voltage (@ 150 mA)- red	V		2.2	
Forward voltage (@ 150 mA)- amber	V		2.4	
LED junction temperature	°C			150

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-mle>

- \* 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.

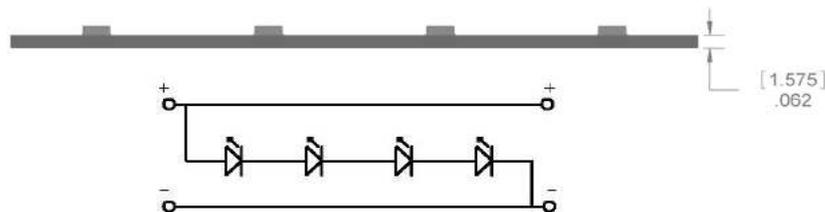
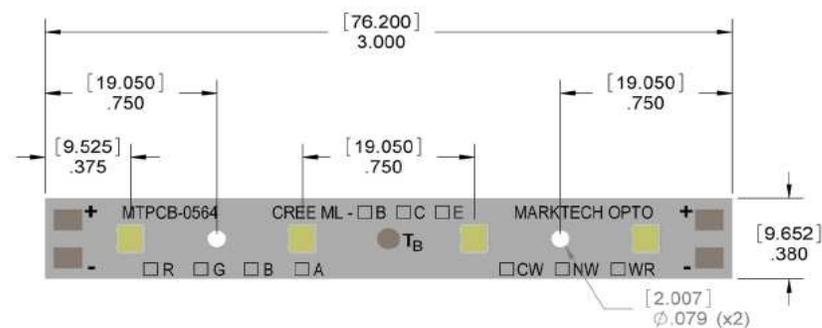
Note 3: The temperature of the LED assembly must be measured at the TC-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

### 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



The information contained herein is subject to change without notice.

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