



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 White Series

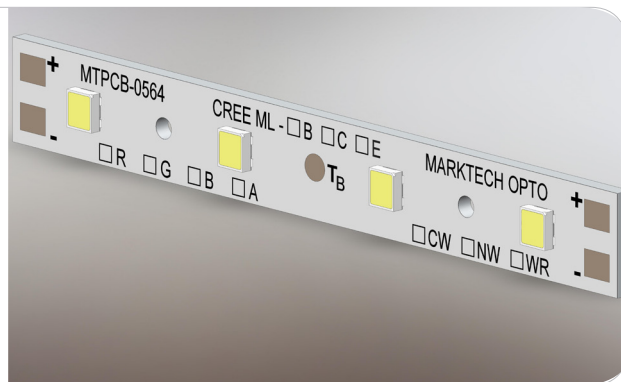
The lighting class ½-watt XLamp ML-E LED brings high performance and a smooth look to a wide range of lighting applications, including linear lighting, LED replacement lamps, fluorescent retrofits and retail-display lighting.

FEATURES

- > Wide Viewing Angle: 120°
- > Thermal Resistance: 11°C/W
- > Maximum Drive Current: 0.5A for MLEAWT
0.167A for MLESWT

APPLICATIONS

- > Linear Lighting
- > Fluorescent Retrofits
- > Retail Display



Flux Characteristics ($T_j=25^{\circ}\text{C}$ --White)(per LED)



COLOR TEMPERATURE	CCT(TYP.)(°K)*	MIN.FLUX (LM) @150MA	KIT USED
Cool White	4750--5250	45.7	03E3
Neutral White	3700--4300	45.7	03E5
Warm White	2800--3200	39.8	02E7

*See Cree Specifications

*Absolute Maximum Ratings (Note 1)

ITEMS	SYMBOL	RATING	UNIT
Forward Current (Parallel Chip White MLEAWT)	I_F	500	mA
Forward Current (Series Chip White MLESWT)	I_F	167	mA
Forward Voltage (TYPICAL)(@150mA)(Parallel Chip White MLEAWT)	V_F	12.8	V
Forward Voltage (TYPICAL)(@50mA)(Series Chip White MLESWT)	V_F	38.4	V
Reverse Voltage (All White)	V_R	-20.0	V
Operating Temperature at T_C Point (Note 2&3)	T_{OPR}	100	°C
Junction Temperature	T_J	150	°C
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 ML-E Series page for additional and most recent technical data at <http://www.cree.com/led-components-and-modules/products/xlamp/discrete-nondirectional/xlamp-mle>

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 20°C/W (all colors) so that the LED is not exposed to a condition beyond the absolute maximum ratings.

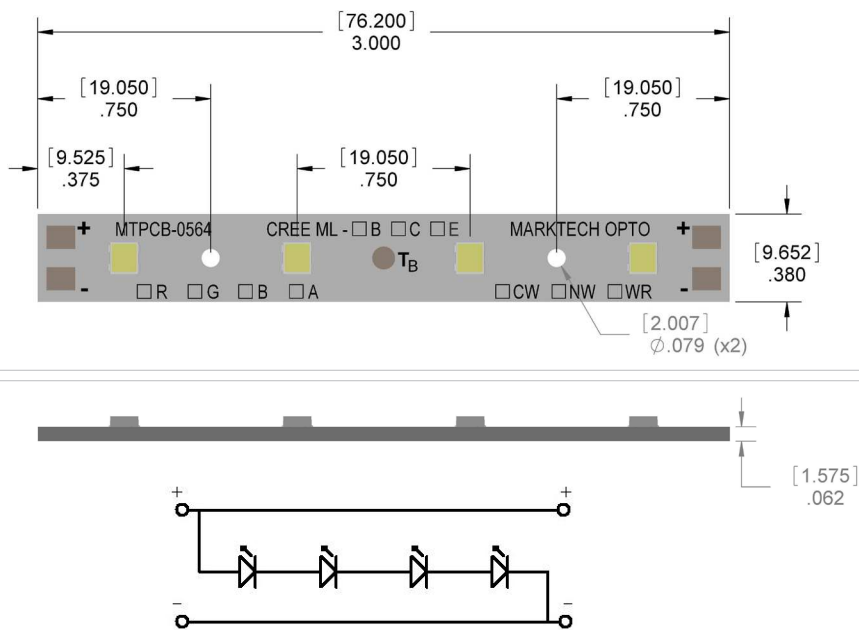
Note 3: The temperature of the LED assembly must be measured at the T_B -point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Hardware (not included)

- > Mount with M1.6 Machine Screws.
- > 18AWG 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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