

1.6X0.8mm SMD CHIP LED LAMP

### **Features**

- $\bullet$  Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- $\bullet$  MSL (Moisture Sensitivity Level): 3
- RoHS compliant





# Package Schematics 1.6[0.063] 1.2[0.047] 2 R0.35[0.014] 0.3[0.012] 0.3[0.012] 1 2 Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.15(0.006")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		M2CRK (AlGaInP)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V		
Forward Current	$I_{\mathrm{F}}$	30	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA		
Power Dissipation	$P_{D}$	84	mW		
Operating Temperature	$T_{A}$	-40 ~ +85	°C		
Storage Temperature	Tstg	-40 ~ +85			

Operating Characteristics (T <sub>A</sub> =25°C)		M2CRK (AlGaInP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.8	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA
Wavelength of Peak EmissionCIE127-2007* (Typ.) $(I_F=20\text{mA})$	λΡ	640*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) $(I_F=20\text{mA})$	λD	625*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	20	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	27	pF

Luminous Intensity

Part Number	Color	Emitting Material	Lens-color	$(I_F=20 \text{mA})$ $\text{mcd}$		CIE127-2007^ nm λP	Angle 2θ 1/2
				min.	typ.		
ZM2CRK53W-8	Red	AlGaInP	Water Clear	1900 500*	2690 795*	640*	60°

<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

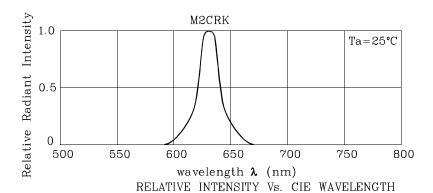
Feb 12,2014

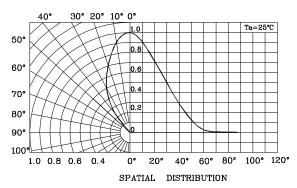
Wavelength

Viewing

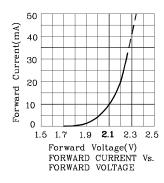


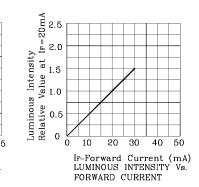


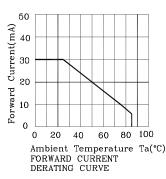


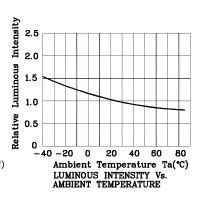


### **❖** M2CRK



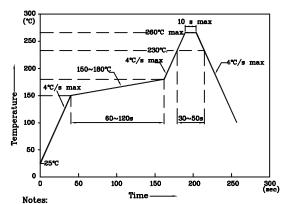






# LED is recommended for reflow soldering and soldering profile is shown below.

### Reflow Soldering Profile for SMD Products (Pb-Free Components)

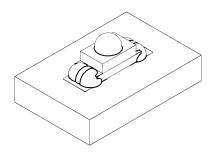


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

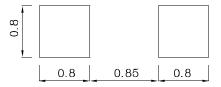




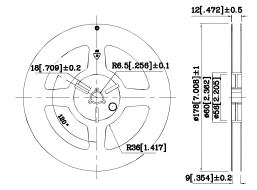
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



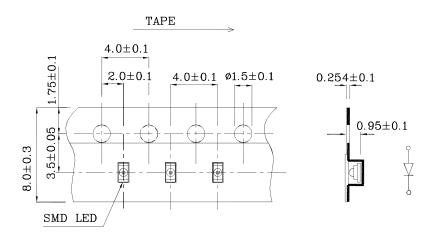
❖ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



### **❖** Reel Dimension



### \* Tape Specification (Units:mm)



## Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

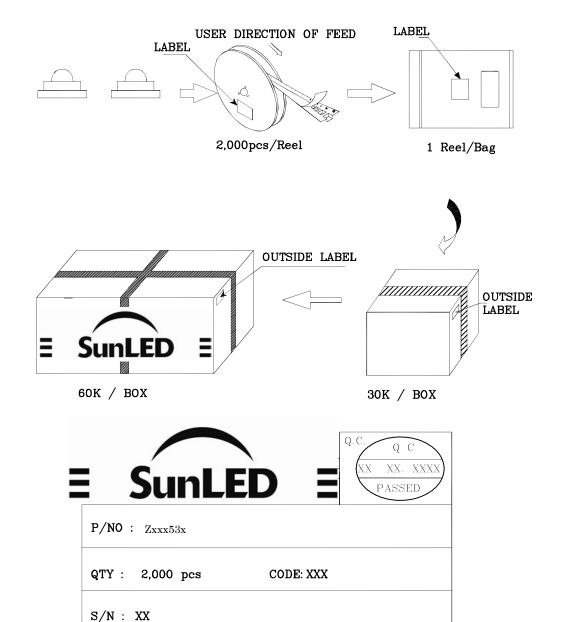
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.





### PACKING & LABEL SPECIFICATIONS



### TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.

RoHS Compliant

- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
- 5. The contents within this document may not be altered without prior consent by SunLED.

LOT NO:

6. Additional technical notes are available at http://www.SunLED.com/TechnicalNotes