

1.6 x 0.8 x 0.25mm (0603) SMD Chip LED Lamp

Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 4,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Halogen-free
- RoHS compliant





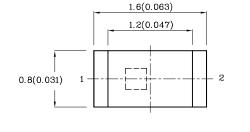


ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

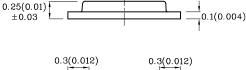
Applications

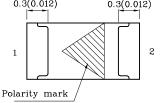
- 1. Mobile phone Keypad indicator and backlight
- 2.Flat backlight for LCD, switch and symbol
- 3.Toys

Package Schematics









Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.1(0.004")$ unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T _A =25°C)		Blue (InGaN)	Unit	
Reverse Voltage	V_{R}	5	V	
Forward Current	I_{F}	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	i _{FS} 150 n		
Power Dissipation	P_D	120	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		
Electrostatic Discharge Threshold (HBM)		250	V	

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

XZCBD53W-6

Operating Characteristics (T _A =25°C)		Blue (InGaN)	Unit
Forward Voltage (Typ.) (I _F =20mA)	$ m V_F$	3.3	V
Forward Voltage (Max.) (I _F =20mA)	V_{F}	4	V
Reverse Current (Max.) $(V_R=5V)$	I_R	50	μА
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λΡ	460*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) $(I_F=20 \text{mA})$	λD	465*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	25	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	100	рF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I _F =20mA) mcd	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min. typ.		

Water Clear

40*

98*

InGaN

Blue

Nov 27,2020

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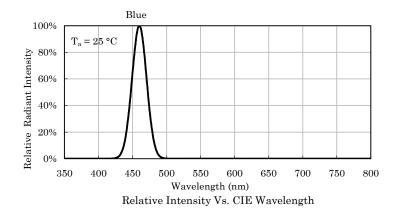
460*

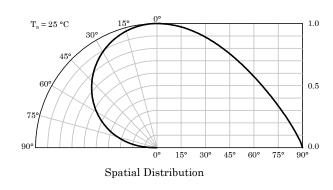
130°

^{*}Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

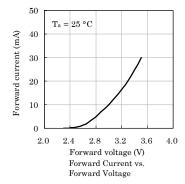


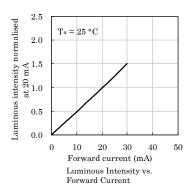


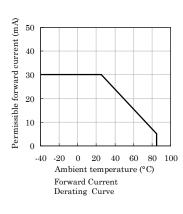


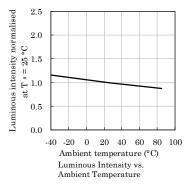


❖ Blue



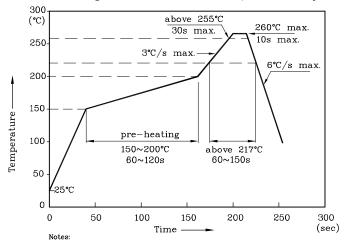






LED is recommended for reflow soldering and soldering profile is shown below.

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



- 1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions.

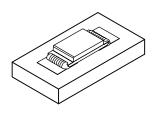
 3. Maximum number of soldering passes: 2

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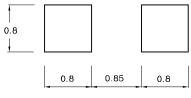


 $1.6 \times 0.8 \times 0.25$ mm (0603) SMD Chip LED Lamp www.SunLEDusa.com

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

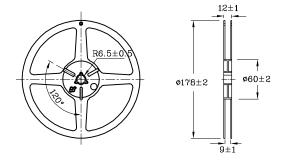


❖ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

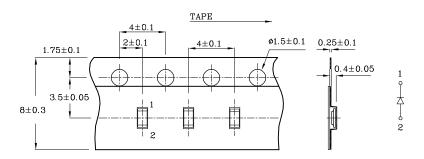


Mask open area ratio: 80% Mask thickness: 80~100um

❖ Reel Dimension (Units:mm)



❖ 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.

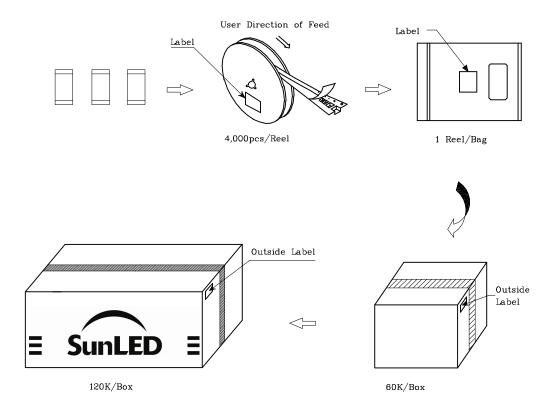
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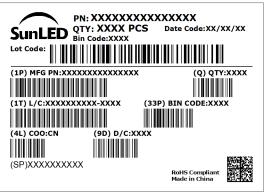
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PACKING & LABEL SPECIFICATIONS





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