

 1.6×0.8 mm SMD Chip LED Lamp

Features

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

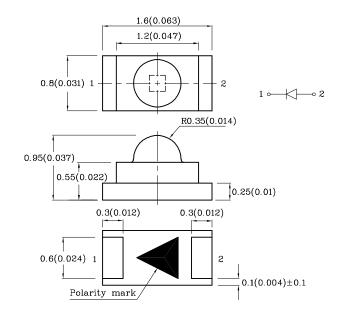






ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Package Schematics



- 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 _A =25°C)	Green (InGaN)	Unit		
Reverse Voltage	V_{R}	5	V	
Forward Current	I_{F}	25	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA	
Power Dissipation	P_{D}	102.5	mW	
Electrostatic Discharge Threshold (HBM)	450	V		
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		

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)

XZDGK53W-8

Nov 30,2020

Operating Characteristics (T _A =25°C)		Green (InGaN)	Unit	
Forward Voltage (Typ.) (I _F =20mA)	V_{F}	3.3	V	
Forward Voltage (Max.) (I _F =20mA)	V_{F}	4.1	V	
Reverse Current (Max.) $(V_R=5V)$	I_R	50	μΑ	
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λΡ	515*	nm	
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =20mA)	λD	525*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	$\triangle \lambda$	35	nm	
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	45	pF	

Luminous Intensity

1195*

700*

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

Water Clear

InGaN

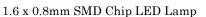
Green

515*

Wavelength

60°

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

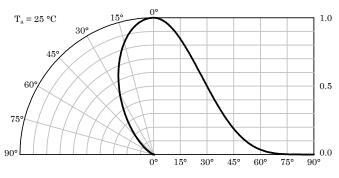






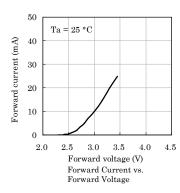
Green 100% $T_a = 25 \, ^{\circ}C$ 80% Relative Radiant Intensity 60% 40% 20% 0% 600 650 800 350400 450 500 550 700 750 Wavelength (nm)

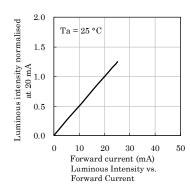
Relative Intensity Vs. CIE Wavelength

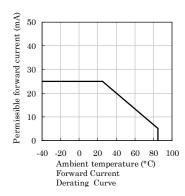


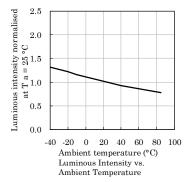
Spatial Distribution

❖ Green



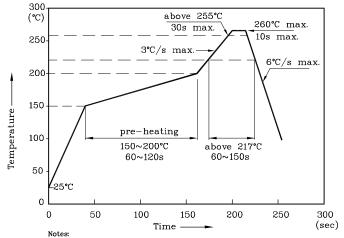






LED is recommended for reflow soldering and soldering profile is shown below.

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

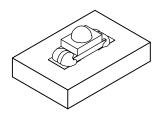


- 1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow
- Do not apply any stress to the LED during high temperature conditions. Maximum number of soldering passes: 2

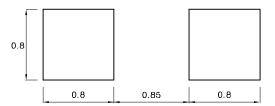


 1.6×0.8 mm SMD Chip LED Lamp

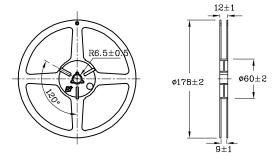
♦ The device has a single mounting surface. The device must be mounted according to the specifications.



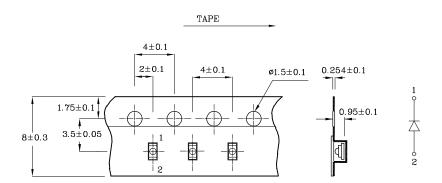
♦ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



❖ Reel Dimension (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:

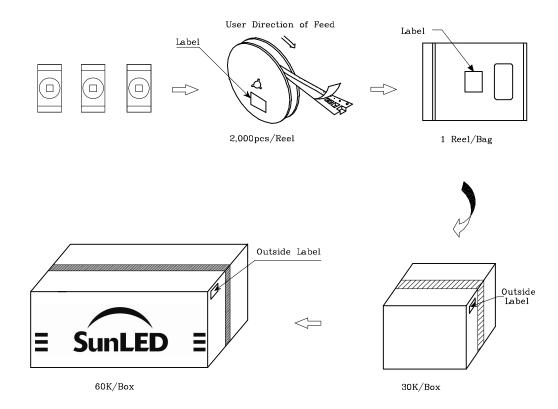
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

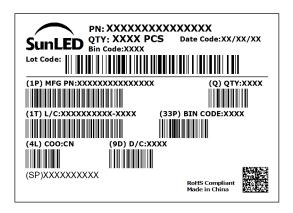
Note: Accuracy may depend on the sorting parameters.





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.
- 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.
- $5. \ The \ contents \ within \ this \ document \ may \ not \ be \ altered \ without \ prior \ consent \ by \ SunLED.$
- 6. Additional technical notes are available at https://www.SunLEDusa.com/TechnicalNotes.asp

Nov 30,2020 XDSB7576 V7-Z Layout: Maggie L.