

 $1.0 \times 0.5 \times 0.2$ mm (0402) SMD Chip LED Lamp

Features

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

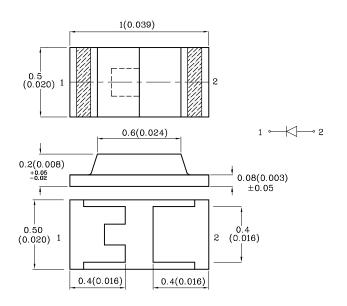






ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

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)		Green (AlGaInP)	Unit	
Reverse Voltage	$V_{\rm R}$	5	V	
Forward Current	I_{F}	25	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	120	mA	
Power Dissipation	P_{D}	60	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	<u> </u>	

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)

Operating Characteristics (T _A =25°C)	Green (AlGaInP)	Unit	
Forward Voltage (Typ.) (I _F =20mA)	V_{F}	2.0	V
Forward Voltage (Max.) (I _F =20mA)	V_{F}	2.4	V
Reverse Current (Max.) $(V_R=5V)$	I_R	10	μА
Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =20mA)	λΡ	572*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=20\text{mA})$	λD	571*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	20	nm

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} Luminous\ Intensity\\ CIE127\text{-}2007*\\ (I_F\text{=}20\text{mA})\\ mcd \end{array}$		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZVGR68W-3	Green	AlGaInP	Water Clear	12*	34*	572*	120°

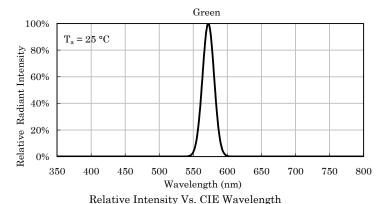
^{*}Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

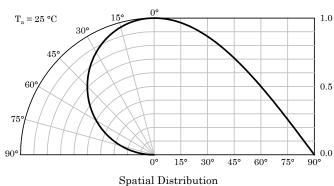
Feb 23,2023

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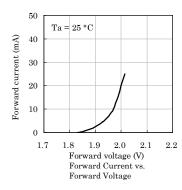


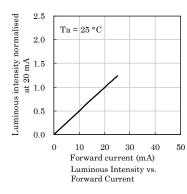


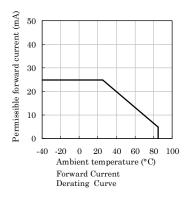


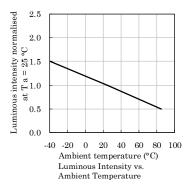


❖ Green



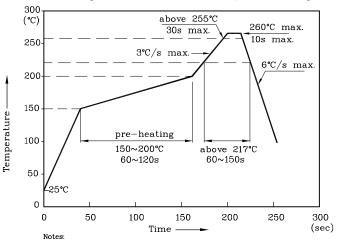






LED is recommended for reflow soldering and soldering profile is shown below.

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

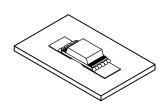


- 1. All temperatures refer to the center of the package,
- measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions.

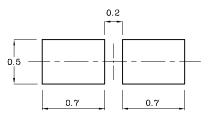
 3. Maximum number of soldering passes: 2

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

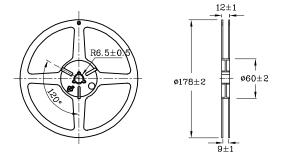


❖ Recommended Soldering Pattern (Units:mm; Tolerance: ± 0.1)

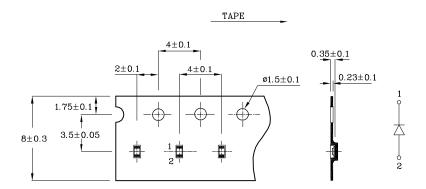


Mask open area ratio: 80% Mask thickness: 80~100um

❖ 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:

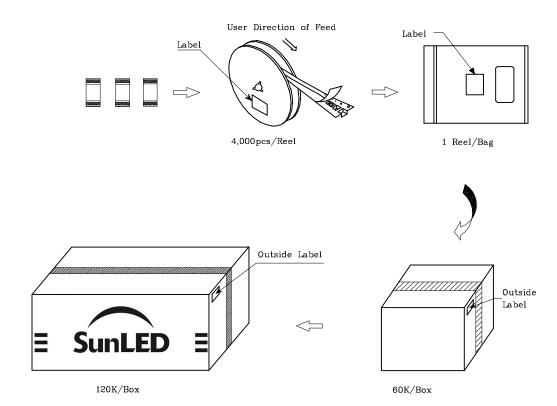
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

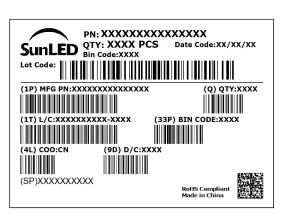
Note: Accuracy may depend on the sorting parameters.

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PACKING & LABEL SPECIFICATIONS





TERMS OF USE

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- 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.
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XDSB7584 V8-Z Layout: Maggie L.