



1.0 x 0.5 x 0.2mm (0402) 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
- Low current IF=5mA operating.
- Halogen-free
- RoHS compliant



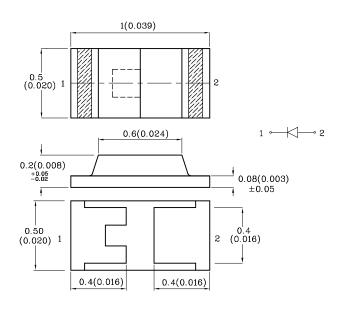




ATTENTION OBSERVE PRECAUTIONS FOR HANDLING

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 (InGaN)	Unit			
Reverse Voltage	V_{R}	5	V		
Forward Current	I_{F}	10	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	50	mA		
Electrostatic Discharge Threshold (HBM)	1000	V			
Power Dissipation	P_{D}	34	mW		
Operating Temperature	T_{A}	-40 ~ +85	°C		
Storage Temperature	Tstg	-40 ~ +85	-0		

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 $(T_A=25^{\circ}C)$	Green (InGaN)	Unit	
Forward Voltage (Typ.) (I _F =5mA)	V_{F}	3	V
Forward Voltage (Max.) (I _F =5mA)	V_{F}	3.2	V
Reverse Current (Max.) (V _R =5V)	I_R	50	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) $(I_F=5mA)$	λР	518*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I _F =5mA)	λD	527*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =5mA)	$\triangle \lambda$	35	nm

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous} \\ \text{CIE127} \\ \text{(I}_{\text{F}} = 5 \\ \text{m} \end{array}$	7-2007* 5mA)	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZBGR68W5MAV-3	Green	InGaN	Water Clear	30*	69*	518*	140°

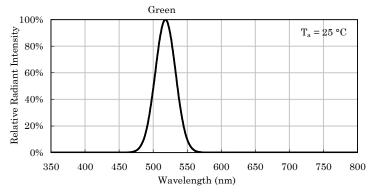
^{*}Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

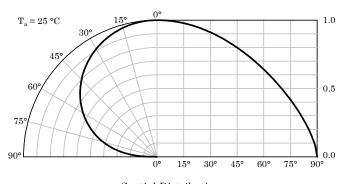
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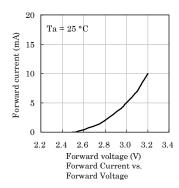


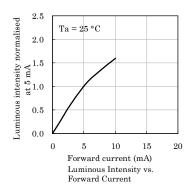


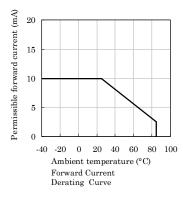
Relative Intensity Vs. CIE Wavelength

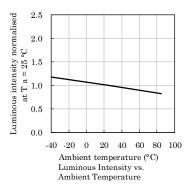
Spatial Distribution

❖ Green



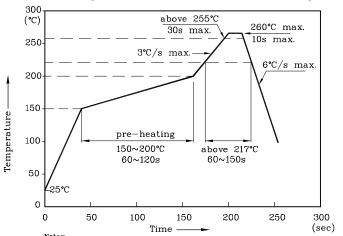






LED is recommended for reflow soldering and soldering profile is shown below.

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.

 2. Do not apply any stress to the LED during high temperature conditions.

 3. Maximum number of soldering passes: 2

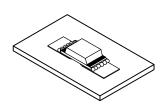
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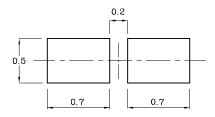
Part Number: XZBGR68W5MAV-3

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

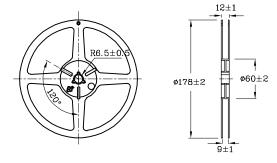
♦ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



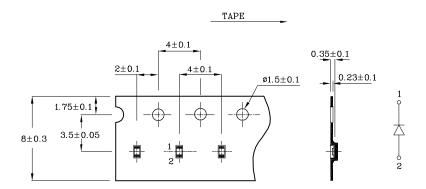


Mask open area ratio: 80% Mask thickness: 80~100um

❖ 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

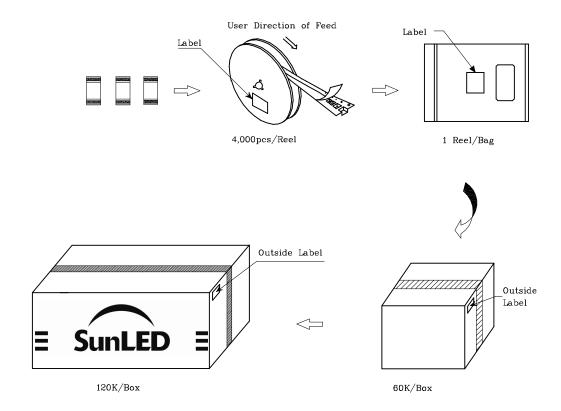
Note: Accuracy may depend on the sorting parameters.

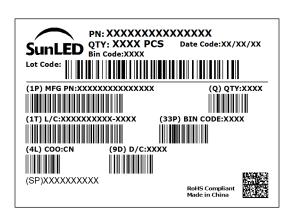
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PACKING & LABEL SPECIFICATIONS





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- 2. Contents within this document are subject to improvement and enhancement changes without notice.
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