

0.65 x 0.35 x 0.2 mm 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): 2
- RoHS compliant

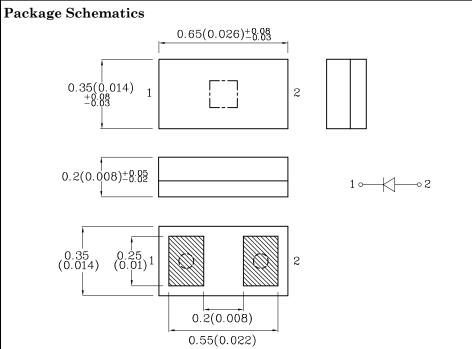






### ATTENTION SERVE PRECAUTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



### 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 <sub>A</sub> =25°C)	Green (InGaN)	Unit			
Reverse Voltage	$V_{\mathrm{R}}$	5	V		
Forward Current	$I_{\mathrm{F}}$	10	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{\mathrm{FS}}$	50	mA		
Power Dissipation	$P_{D}$	34	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)

Operating Characteristics (T <sub>A</sub> =25°C)	Green (InGaN)	Unit		
Forward Voltage (Typ.) (I <sub>F</sub> =5mA)	$V_{ m F}$	2.85	V	
Forward Voltage (Max.) (I <sub>F</sub> =5mA)	$V_{\mathrm{F}}$	3.3	V	
Reverse Current (Max.) $(V_R=5V)$	$I_{R}$	50	μΑ	
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =5mA)	λΡ	515*	nm	
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=5\text{mA})$	λD	525*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =5mA)	$\triangle \lambda$	30	nm	

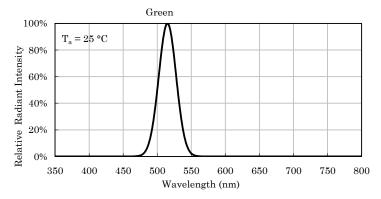
Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} { m CIE}127 \\ { m (I_F=5)} \end{array}$	s Intensity 7-2007* 5mA) cd	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZDG155W5MAV	Green	InGaN	Water Clear	180*	278*	515*	140°

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

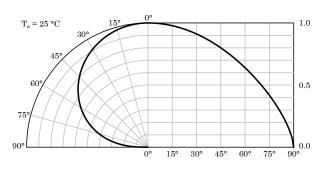
XDSB9202 V1-Z Layout: Maggie L.



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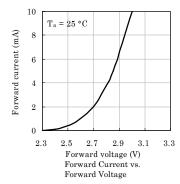


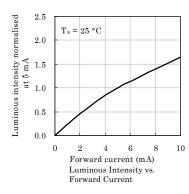
Relative Intensity Vs. CIE Wavelength

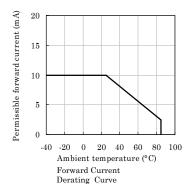


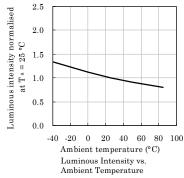
Spatial Distribution

### **❖** Green



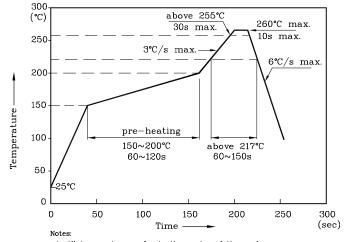






### LED is recommended for reflow soldering and soldering profile is shown below.

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.

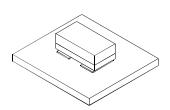
  2. Do not apply any stress to the LED during high temperature conditions.

  3. Maximum number of soldering passes: 2

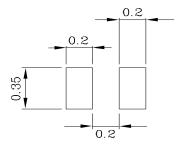


 $0.65 \times 0.35 \times 0.2$  mm SMD Chip LED Lamp

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

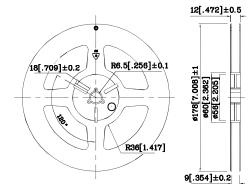


## **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

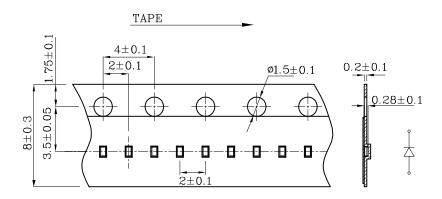


Mask open area ratio:80% Mask thickness:80~100um

### **❖** 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

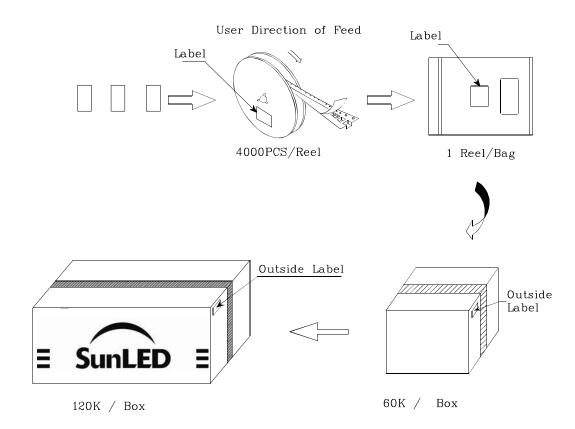
Note: Accuracy may depend on the sorting parameters.

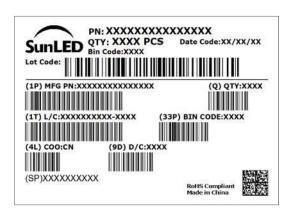
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### PACKING & LABEL SPECIFICATIONS





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