

3.2x1.6mm SMD CHIP LED LAMP

### **Features**

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

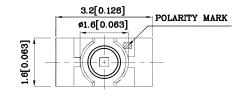




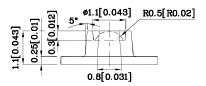


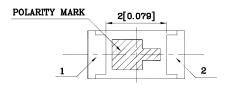
# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

### 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 <sub>A</sub> =25°C)	Blue (InGaN)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{\mathrm{FS}}$	100	mA	
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)

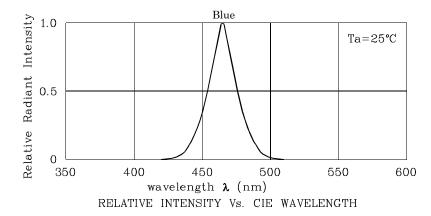
Operating Characteristics (T <sub>A</sub> =25°C)	Blue (InGaN)	Unit		
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	3.3	V	
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	4	V	
Reverse Current (Max.) (V <sub>R</sub> =5V)	` ′ / p			
Wavelength of Peak Emission CIE127-2007*(Typ.) (I <sub>F</sub> =20mA)	λΡ	465*	nm	
Wavelength of Dominant EmissionCIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	470*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	22	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	pF	

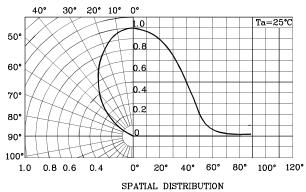
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous CIE127 (I <sub>F</sub> =20 me	0mA)	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZFBB55W-A2	Blue	InGaN	Water Clear	400*	597*	465*	80°

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

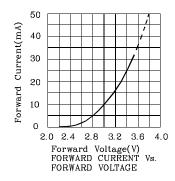


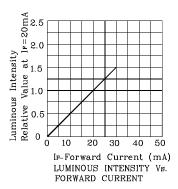


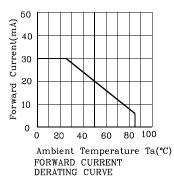


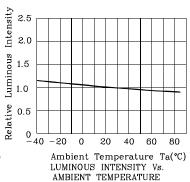


### **❖** Blue



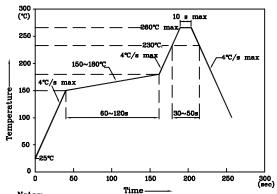






## LED is recommended for reflow soldering and soldering profile is shown below.

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

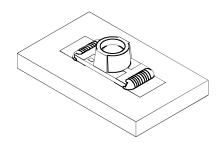


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

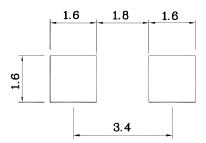




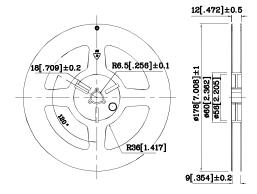
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



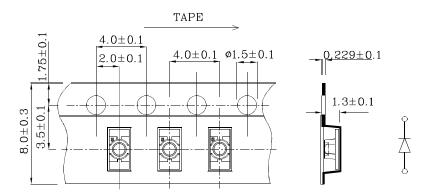
**♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



### **❖** Reel Dimension



### **❖** 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:

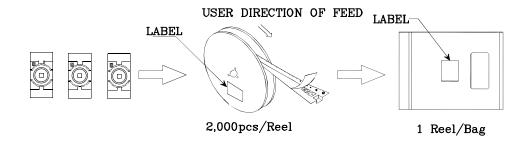
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

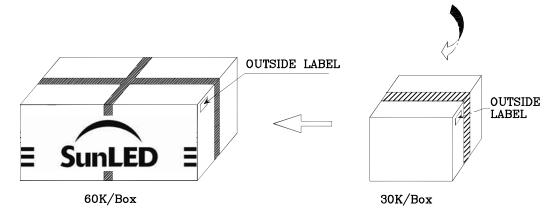
Note: Accuracy may depend on the sorting parameters.  $\,$ 

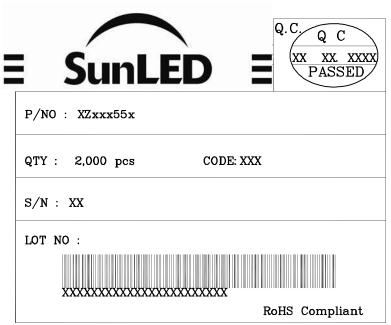




### PACKING & LABEL SPECIFICATIONS







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