

 $0.65 \times 0.35 \times 0.2 \text{mm} (0201)$  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): 2
- Low current IF=5mA operating.
- RoHS compliant







# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

DEVICES

# Package Schematics $0.65[0.026]^{+0.08}_{-0.03}$ $0.65[0.026]^{+0.08}_{-0.03}$ $0.65[0.026]^{+0.08}_{-0.03}$ $0.65[0.026]^{+0.08}_{-0.03}$ $0.65[0.026]^{+0.08}_{-0.03}$ 0.65[0.022]

## 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	$V_{\rm R}$	5	V	
Forward Current	$I_{\mathrm{F}}$	10	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	50	mA	
Power Dissipation	PD	32	mW	
Electrostatic Discharge Threshold (HBM)	1000	V		
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	C	

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> =5mA)	$V_{ m F}$	2.9	V
Forward Voltage (Max.) (I <sub>F</sub> =5mA)	$V_{\mathrm{F}}$	3.1	V
Reverse Current (Max.) $(V_R=5V)$	$I_{\mathrm{R}}$	50	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =5mA)	λΡ	461*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =5mA)	λD	467*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =5mA)	Δλ	22	nm

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* $(I_F=5 \mathrm{mA})$ mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZBBR155W5MAV	Blue	InGaN	Water Clear	15*	24*	461*	140°

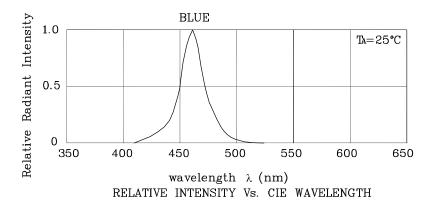
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

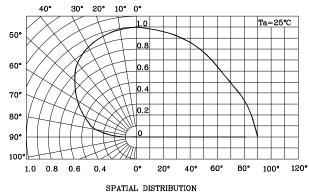
Jun 23,2016 XDSB8231 V4-Z Layout: Maggie L.

0.65x0.35x0.2mm(0201) SMD CHIP LED LAMP

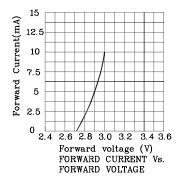


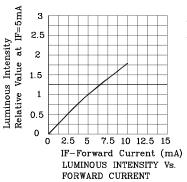


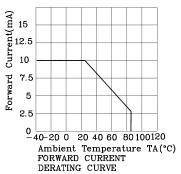


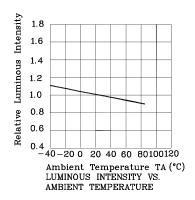


# **♦** Blue



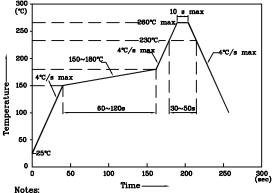






# LED is recommended for reflow soldering and soldering profile is shown below.

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

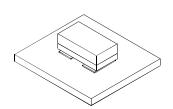


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- Do not put stress to the epoxy resin during high temperatures conditions

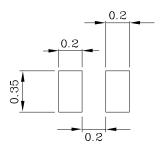




❖ The device has a single mounting surface. The device must be mounted according to the specifications.

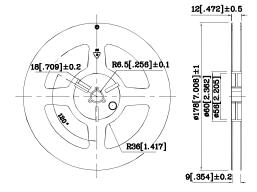


# **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

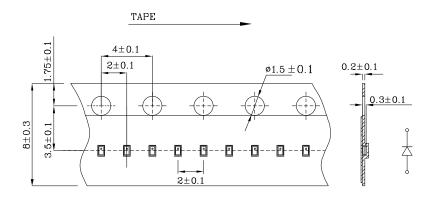


Mask open area ratio:80% Mask thickness:80~100um

# **❖** Reel Dimension



# **❖** Tape Specification (Units:mm)

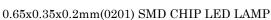


# Remarks:

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:

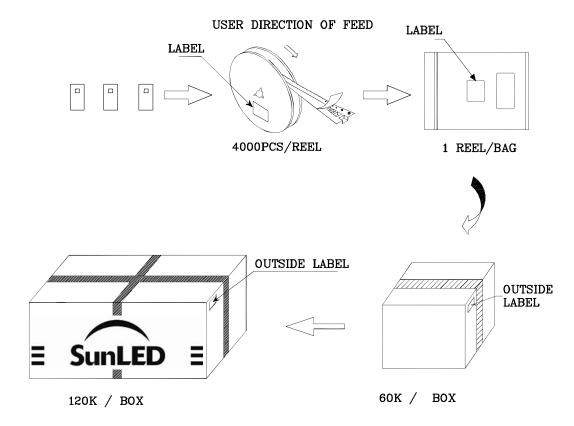
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

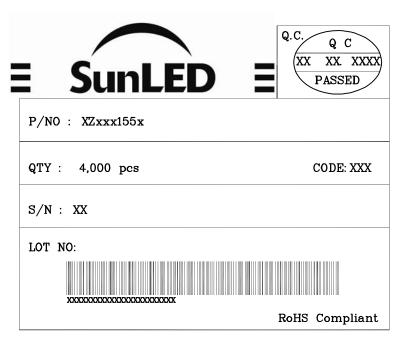
Note: Accuracy may depend on the sorting parameters.





# PACKING & LABEL SPECIFICATIONS





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