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SunLED XZCBD55W-2

For any questions, you can email us directly: <a href="mailto:sales@integrated-circuit.com">sales@integrated-circuit.com</a>



Datasheet of XZCBD55W-2 - LED BLUE CLEAR 2SMD

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Part Number: XZCBD55W-2

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
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant



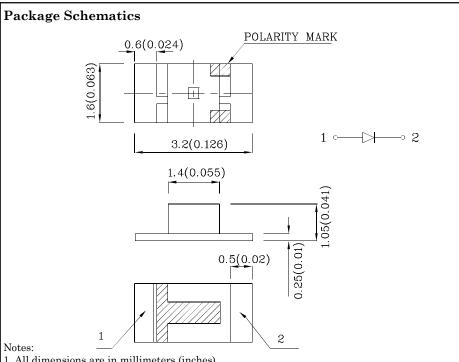




Feb 17,2014

#### ATTENTION

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)	CBD (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	$i_{\mathrm{FS}}$	150	mA	
Power Dissipation	$P_{\mathrm{D}}$	120	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	 	
Electrostatic Discharge Threshold (HBM)	250	V		

Operating Characteristics (T <sub>A</sub> =25°C)	CBD (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)	$I_R$	50	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) $(I_F=20\text{mA})$	λΡ	460*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) $(I_F=20\text{mA})$	λD	465*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	25	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	рF

Luminous Intensity

Part Number	Emitting Color	Emitting Material	Lens-color	CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZCBD55W-2	Blue	InGaN	Water Clear	40*	98*	460*	120°

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

Wavelength



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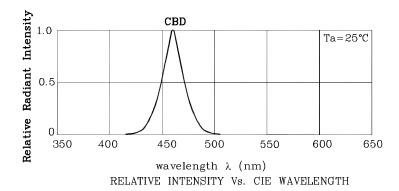
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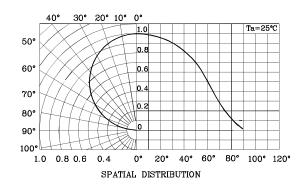


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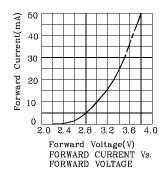
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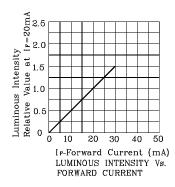


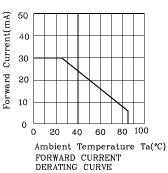


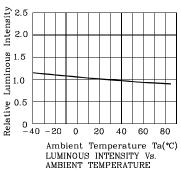


### **♦** CBD



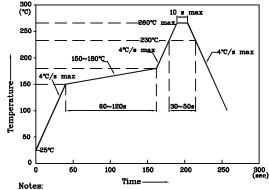






### LED is recommended for reflow soldering and soldering profile is shown below.

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



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

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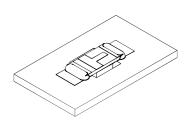


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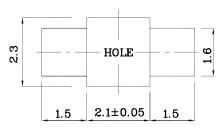
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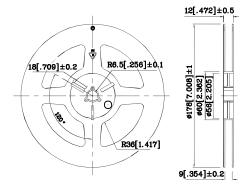
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



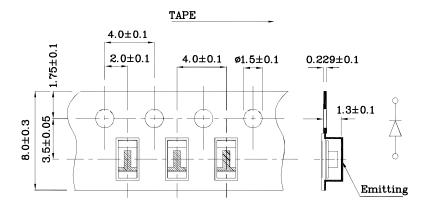
# **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



### **❖** 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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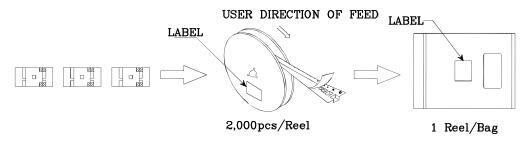
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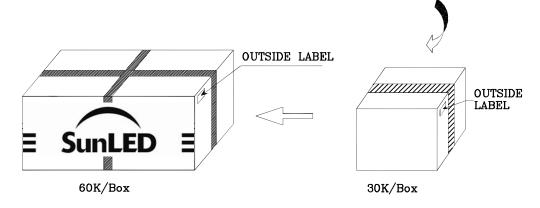


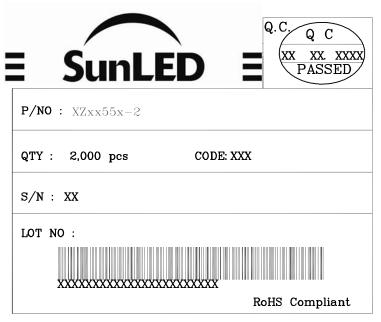
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### PACKING & LABEL SPECIFICATIONS







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- 6. Additional technical notes are available at <a href="http://www.SunLEDusa.com/TechnicalNotes.asp">http://www.SunLEDusa.com/TechnicalNotes.asp</a>

Feb 17,2014 XDSB1583 V4-Z Layout: Maggie L.

