

## Part Number: XZCWD67S

4.0x4.0mm RIGHT ANGLE SURFACE MOUNT LED LAMP

## **Features**

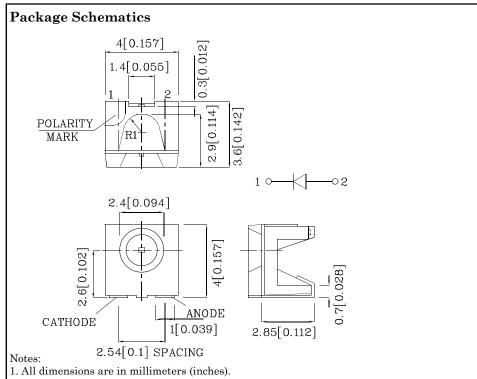
- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 500pcs/ Reel
- $\bullet$  MSL (Moisture Sensitivity Level): 3
- RoHS compliant







## ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		CWD (InGaN)	Unit		
Reverse Voltage	$V_{\rm R}$	5	V		
Forward Current	$I_{\mathrm{F}}$	30	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA		
Power Dissipation	$P_{D}$	120	mW		
Electrostatic Discharge Threshold (HBM)	250	V			
Operating Temperature	$T_{A}$	-40 ~ +85	°C		
Storage Temperature	Tstg	-40 ~ +85	-0		

Operating Characteristics $(T_A=25^{\circ}C)$		CWD (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.) $(V_R=5V)$	$I_R$	50	uA
Chromaticity Coordinates	X	0.31	
(Typ.)	у	0.31	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous Intensity} \\ \text{CIE127-2007*} \\ \text{(I_F=20mA)} \\ \text{mcd} \end{array}$		Viewing Angle 20 1/2
				min.	typ.	
XZCWD67S	White	InGaN	Water Clear	300*	597*	120°

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

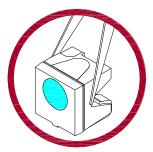
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# **Handling Precautions**

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force. As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

1. Handle the component along the side surfaces by using forceps or appropriate tools.



2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.

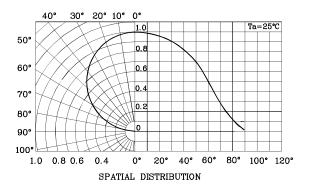




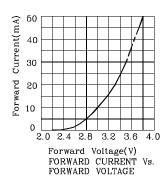
3. As silicone encapsulation is permeable to gases, some corrosive substances such as H<sub>2</sub>S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

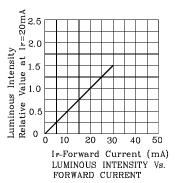
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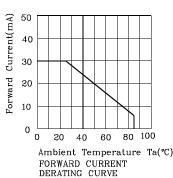
LAMP

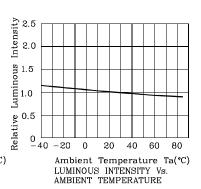


## **&** CWD



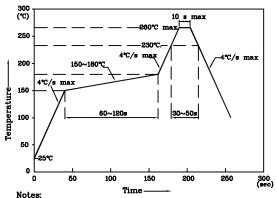






LED is recommended for reflow soldering and soldering profile is shown below.

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



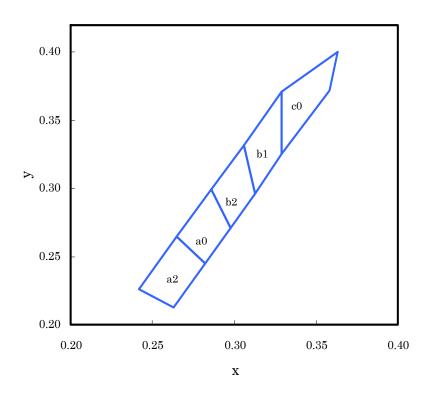
- notes:
  1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

 $4.0\mathrm{x}4.0\mathrm{mm}$  RIGHT ANGLE SURFACE MOUNT LED

LAMP

# XZCWD67S

# White CIE



	X	у		X	У		X	у
	0.263	0.213	а0	0.282	0.245	b2	0.298	0.271
a2	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

# Notes:

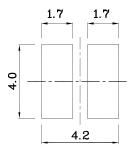
Shipment may contain more than one chromaticity regions. Orders for single chromaticity region are generally not accepted. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01.$ 

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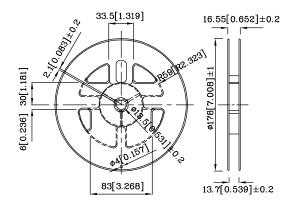
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



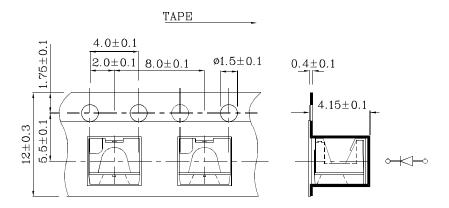
**❖** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



## \* Reel Dimension



# **❖** Tape Specification (Units:mm)



## Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or chromaticity), the typical accuracy of the sorting process is as follows:

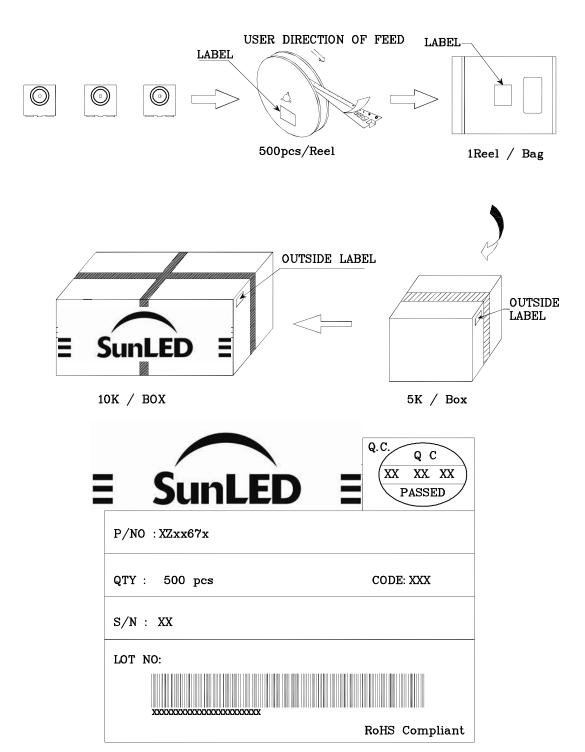
- 1. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01$ .
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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# PACKING & LABEL SPECIFICATIONS



## TERMS OF USE

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- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
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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>