

### Part Number: XZCWD56F

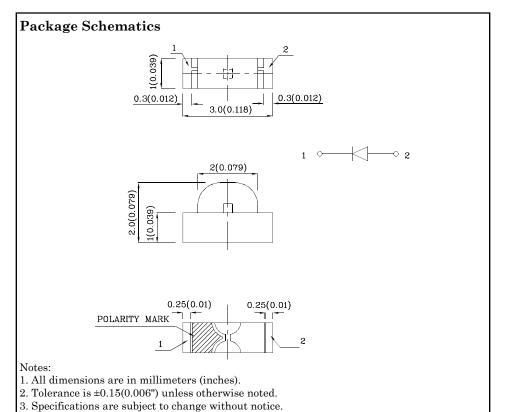
3.0mmx1.0 mm RIGHT ANGLE SMD CHIP LED LAMP

### **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







Absolute Maximum Rating (TA=25°C)	CWD (InGaN)	Unit		
Reverse Voltage	VR	5	V	
Forward Current	$I_{\rm F}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	Duty Cycle iFs		mA	
Power Dissipation	PD	120	mW	
Operating Temperature	$T_{\rm A}$	$\text{-}40 \sim \text{+}85$	°C	
Storage Temperature	age Temperature Tstg $-40 \sim$		-0	
Electrostatic Discharge Thres (HBM)	250	V		

DISCHARGE SENSITIVE

DEVICES

Operating Characteristics (T <sub>A</sub> =25°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 <sub>R</sub> =5V)	$I_R$	50	uA
Chromaticity Coordinates	х	0.31	
(Тур.)	У	0.31	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	$_{\rm pF}$

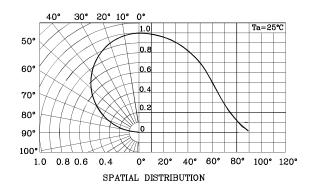
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (IF=20mA) mcd		Viewing Angle 20 1/2
				min.	typ.	
XZCWD56F	White	InGaN	Yellow Fluorescent	120*	178*	120°

\*Luminous intensity value is in accordance with CIE127-2007 standards.

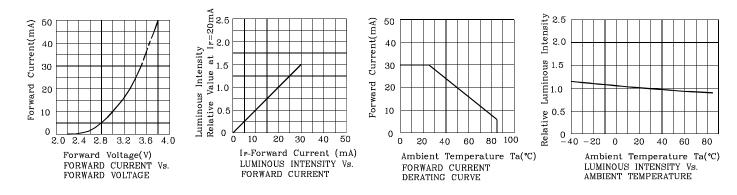
Feb 19,2014

XDSB1429 V5-Z Layout: Maggie L.

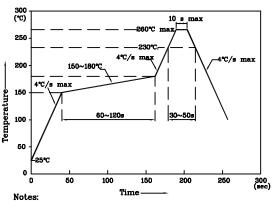




### ♦ CWD



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



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

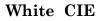
1. Maximum soldering temperature should not exceed 260°C

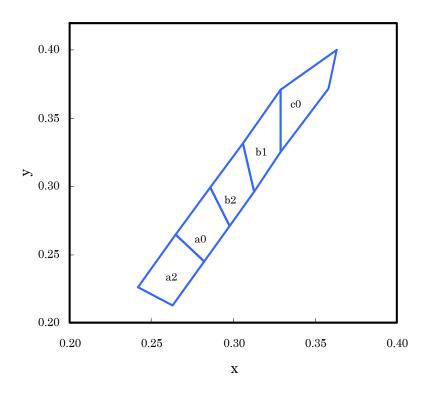
2. Recommended reflow temperature: 145°C-260°C 3. Do not put stress to the epoxy resin during

high temperatures conditions



## XZCWD56F





	х	У		х	У		x	У
	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
a2	0.282	0.245		0.298	0.271		0.313	0.296
a2	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  $\pm 0.01$ .



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

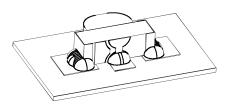
# Recommended Soldering Pattern

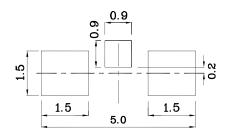
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CHIP LED LAMP

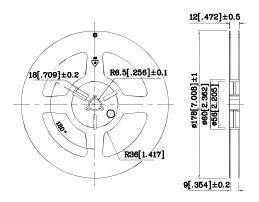
(Units : mm; Tolerance: ± 0.1)

3.0mmx1.0 mm RIGHT ANGLE SMD

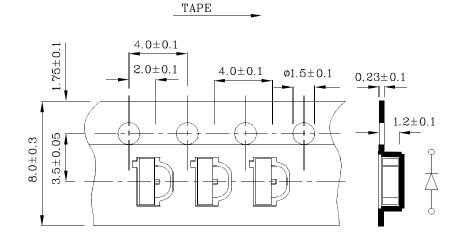




## Reel Dimension



## 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  $\pm 0.01.$ 

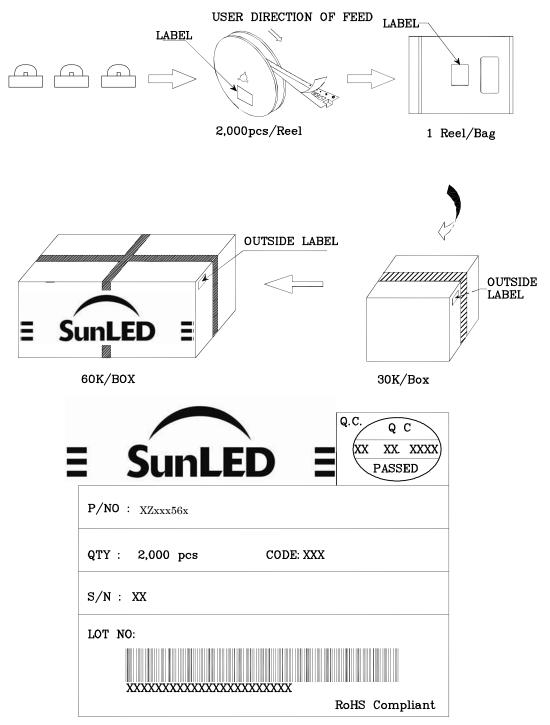
2. Luminous Intensity/ Luminous Flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



## **PACKING & LABEL SPECIFICATIONS**



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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 <u>http://www.SunLEDusa.com/TechnicalNotes.asp</u>

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