

## Part Number: XZCWD55F-2

3.2x1.6mm SMD CHIP LED LAMP

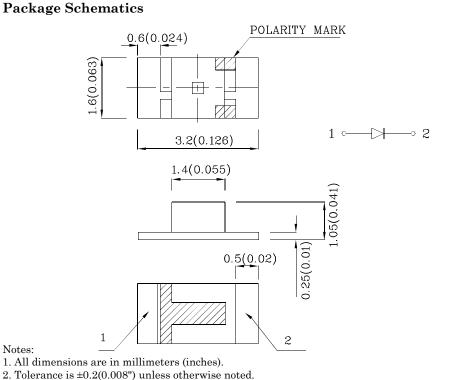
### **Features**

- 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





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



3. Specifications are subject to change without notice.

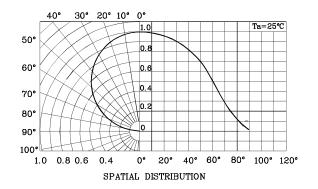
Absolute Maximum Ratings (T <sub>A</sub> =25°C)	CWD (InGaN)	Unit			
Reverse Voltage	$V_{R}$	5	V		
Forward Current	$I_{\rm F}$	30	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA		
Power Dissipation	PD	120	mW		
Electrostatic Discharge Threshold (H	250	V			
Operating Temperature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

Operating Characteristics (T <sub>A</sub> =25°C)		CWD (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	3.3	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	4	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	50	uA
Chromaticity Coordinates	x	0.31	
(Тур.)	У	0.31	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	$_{\rm pF}$

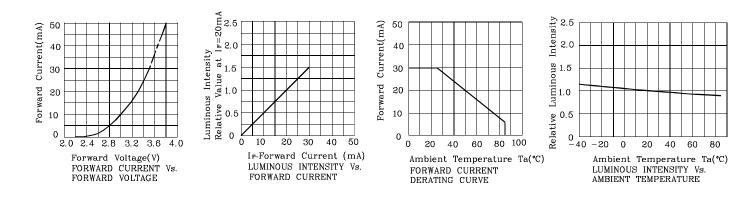
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous CIE127 (I <sub>F</sub> =20 mo	-2007* 0mA)	Viewing Angle 20 1/2
				min.	typ.	
XZCWD55F-2	White	InGaN	Yellow Fluorescent	120*	248*	120°

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





## CWD



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

300 (°C) 10 s max 2097 250 4°C/s C/s max 200 150~180 4°C/s max 150 Temperature 30~50s 60~120s 100 50 0 150 0 50 100 200 250 300 (sec) Time Notes:

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

1. Maximum soldering temperature should not exceed 260°C

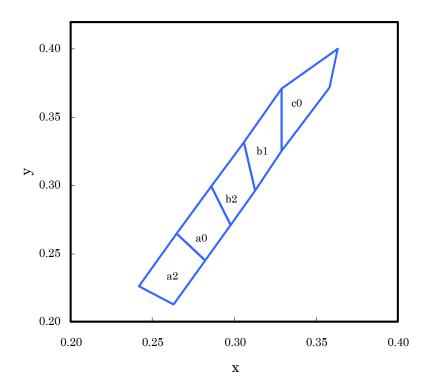
2. Recommended reflow temperature: 145°C-260°C 3. Do not put stress to the epoxy resin during

high temperatures conditions



### XZCWD55F-2





	x	У		x	У		x	У
a2	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
	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:

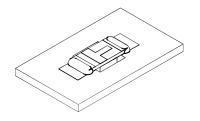
Shipment may contain more than one chromaticity regions.

Orders for single chromaticity region are generally not accepted. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01$ .

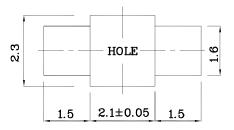


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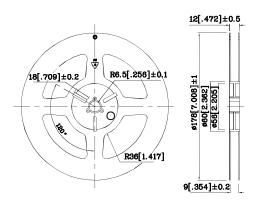
✤ The device has a single mounting surface. The device must be mounted according to the specifications.



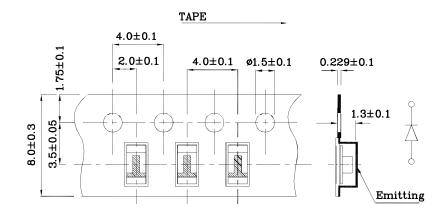
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



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  $\pm 0.01.$ 

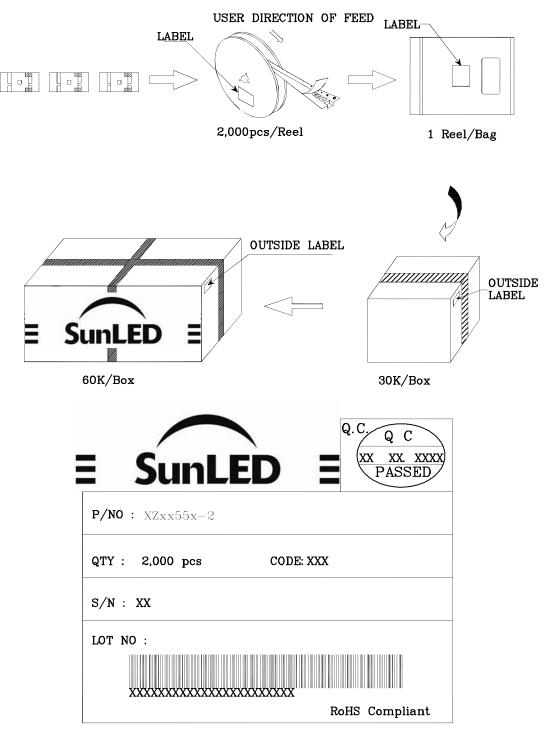
2. Luminous Intensity/ Luminous Flux: +/-15%

3. Forward Voltage: +/-0.1V  $\,$ 

Note: Accuracy may depend on the sorting parameters.



## **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.
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- 6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp

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