



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
- $\bullet$  MSL (Moisture Sensitivity Level): 3
- RoHS compliant

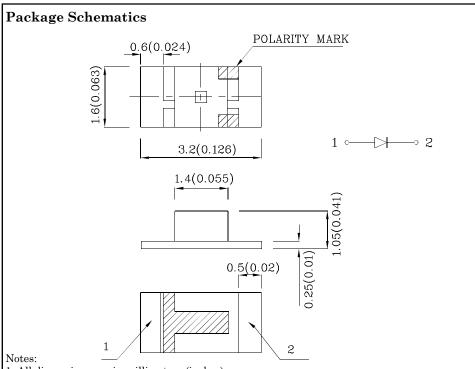






### ATTENTION

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 (TA=25°C)		FWS (InGaN)	Unit	
Reverse Voltage	VR	5	V	
Forward Current	IF	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	100	mA	
Power Dissipation	PD	120	mW	
Operating Temperature	TA	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		
Electrostatic Discharge Threshold (HBM)		250	V	

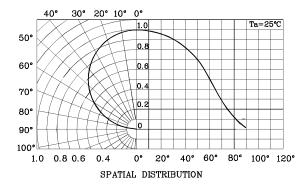
Operating Characteristics (TA=25°C)	FWS (InGaN)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	3.3	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	4	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_{R}$	50	uA
Chromaticity Coordinates (Typ.)	X	0.31	
	у	0.31	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous Intensity} \\ \text{CIE127-2007*} \\ \text{(I}_{\text{F}}\text{=}20\text{mA}) \\ \text{mcd} \end{array}$		Viewing Angle 20 1/2
				min.	typ.	
XZFWS55F-2	White	InGaN	Yellow Fluorescent	400*	597*	120°

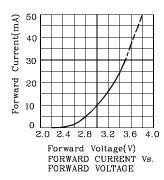
<sup>\*</sup>Luminous intensity value is in accordance with CIE127-2007 standards.

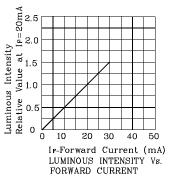


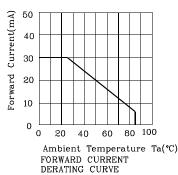


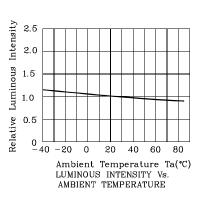


#### **♦** FWS



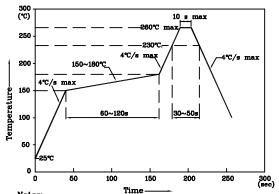






# LED is recommended for reflow soldering and soldering profile is shown below.

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



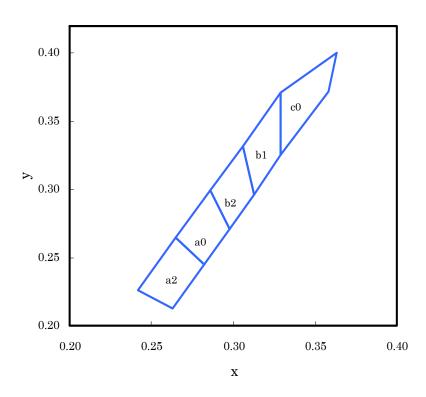
- Notes:
  1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions





#### XZFWS55F-2

### White CIE



	X	У		x	У		X	у
	0.263	0.213		0.282	0.245		0.298	0.271
a2	0.282 0.245	a0	0.298	0.271	b2	0.313	0.296	
az	0.265	0.265	ao	0.286	0.299	02	0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
	0.313	0.313 0.296		0.329	0.325			
b1	0.329	0.325	c0	0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

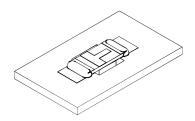
#### Notes:

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

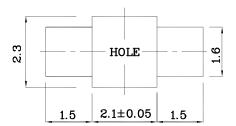




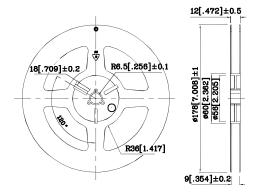
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



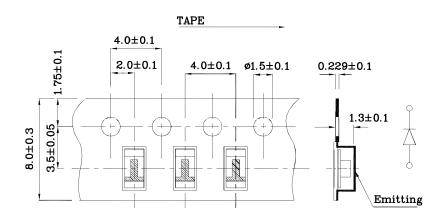
## **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



#### **❖** 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:

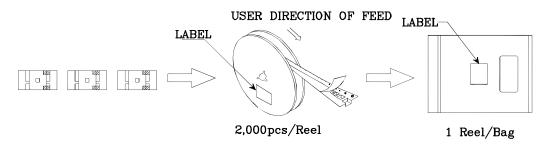
- 1. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01$ .
- 2. Luminous Intensity/ Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

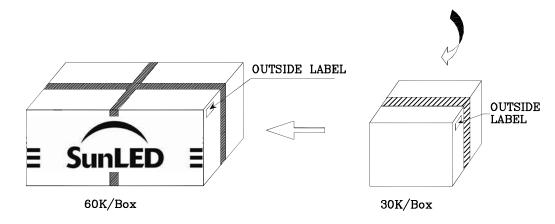
Note: Accuracy may depend on the sorting parameters.

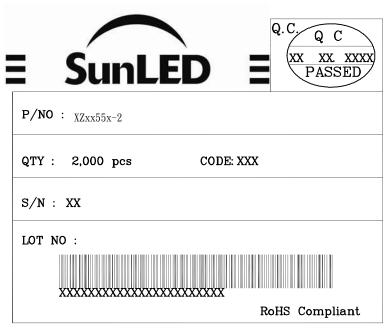




#### PACKING & LABEL SPECIFICATIONS







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