



**THE DATASHEET OF  
XZBWR155F5MAV**



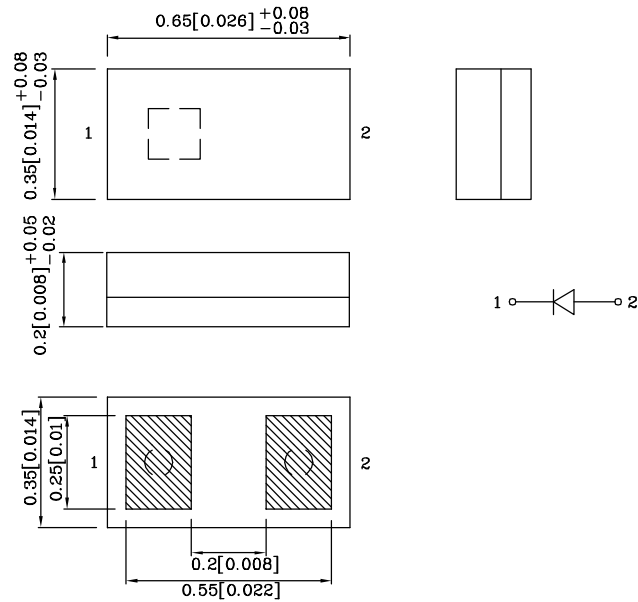
**Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 4,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 2
- Low current IF = 5mA operating
- RoHS compliant



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

**Package Schematics**



**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

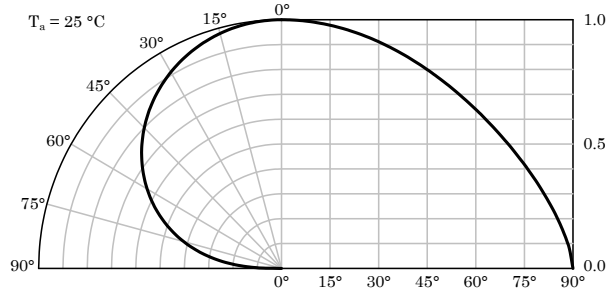
Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		White (InGaN)	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	10	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{FS}$	50	mA
Power Dissipation	$P_D$	32	mW
Electrostatic Discharge Threshold (HBM)		1000	V
Operating Temperature	$T_A$	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-40 ~ +85	

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Operating Characteristics ( $T_A=25^\circ\text{C}$ )		White (InGaN)	Unit
Forward Voltage (Typ.) ( $I_F=5\text{mA}$ )	$V_F$	2.9	V
Forward Voltage (Max.) ( $I_F=5\text{mA}$ )	$V_F$	3.1	V
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	50	$\mu\text{A}$
Chromaticity Coordinates (Typ.)	x	0.31	
	y	0.31	

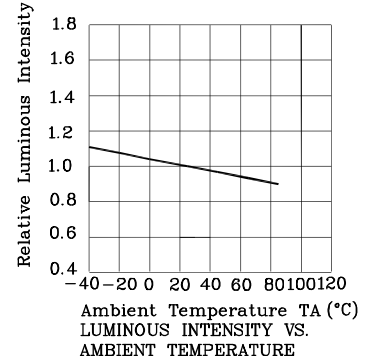
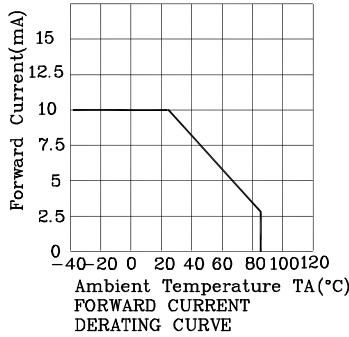
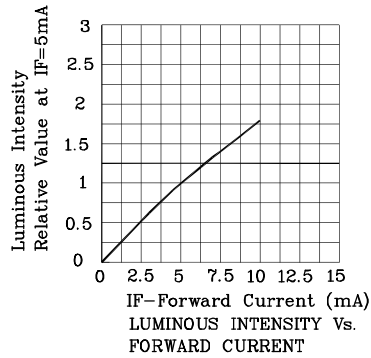
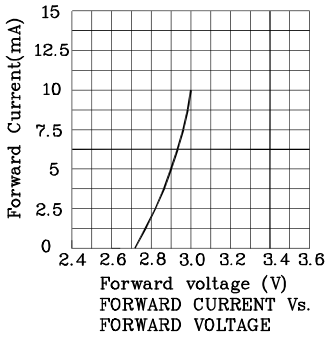
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ( $I_F=5\text{mA}$ ) mcd		Viewing Angle 20 1/2
				min.	typ.	
XZBWR155F5MAV	White	InGaN	Yellow Fluorescent	50*	118*	140°

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



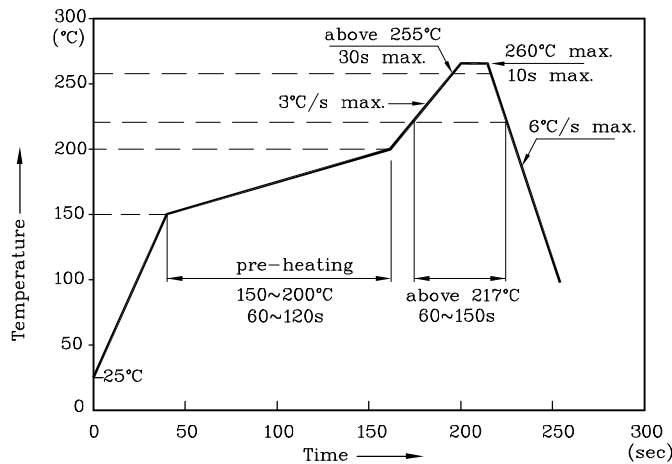
Spatial Distribution

◆ White



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

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



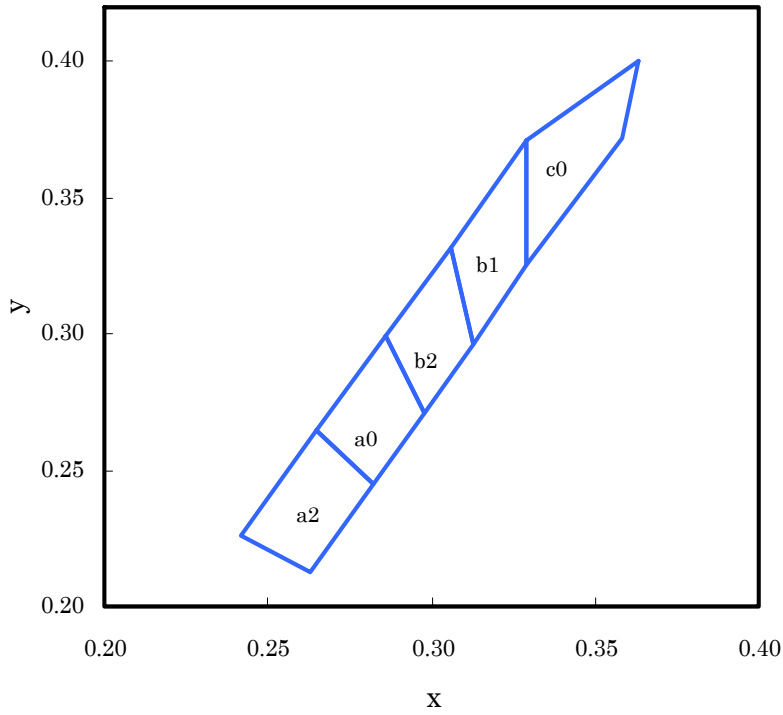
Notes:

1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
2. Do not apply any stress to the LED during high temperature conditions.
3. Maximum number of soldering passes: 2



XZBWR155F5MAV

White CIE



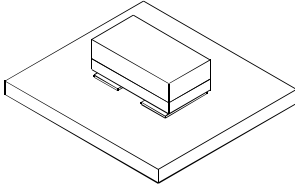
	x	y		x	y		x	y
a2	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

Notes:

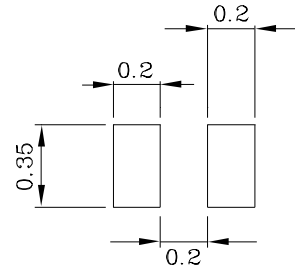
- Shipment may contain more than one chromaticity regions.
- Orders for single chromaticity region are generally not accepted.
- Measurement tolerance of the chromaticity coordinates is  $\pm 0.01$ .



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

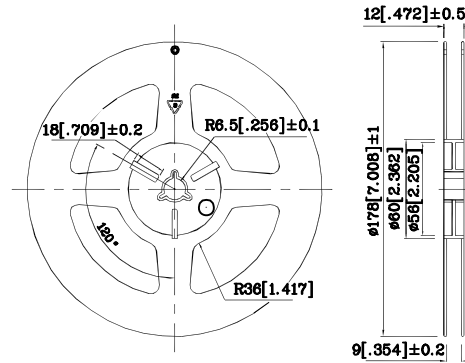


❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )

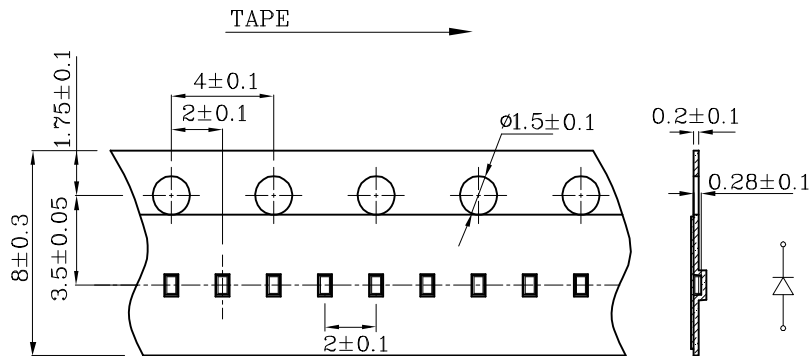


Mask open area ratio:80%  
Mask thickness:80~100um

❖ Reel Dimension



❖ Tape Specification (Units : mm)



Remarks:

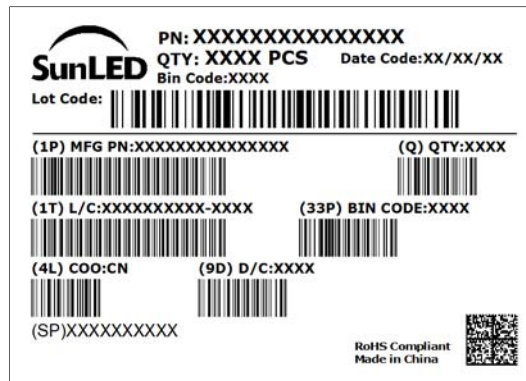
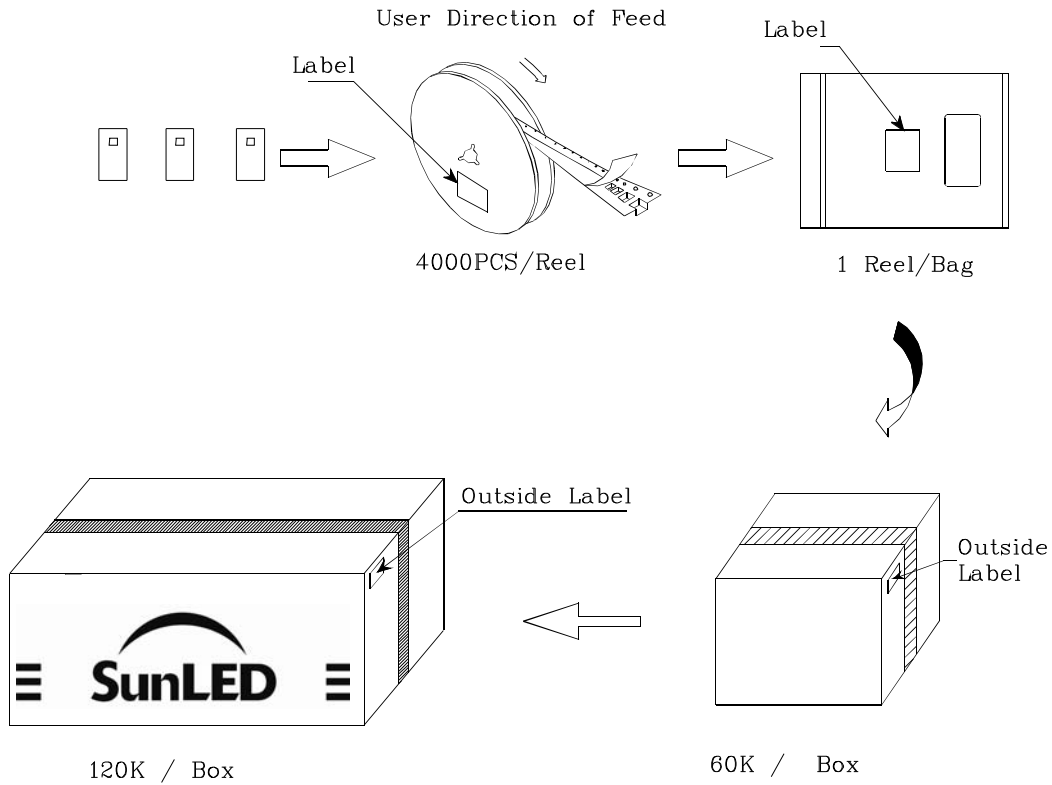
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or chromaticity), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.



**PACKING & LABEL SPECIFICATIONS**



**TERMS OF USE**

1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
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 <https://www.SunLEDusa.com/TechnicalNotes.asp>

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