

### Part Number: XZFCWD14A

SURFACE MOUNT DISPLAY

#### **Features**

- 0.56 inch digit height
- Robust package
- Low power consumption
- Standard configuration: Gray face w/ white segments
- Standard Package: 400pcs/ Reel • MSL (Moisture Sensitivity Level): 2a
- RoHS compliant

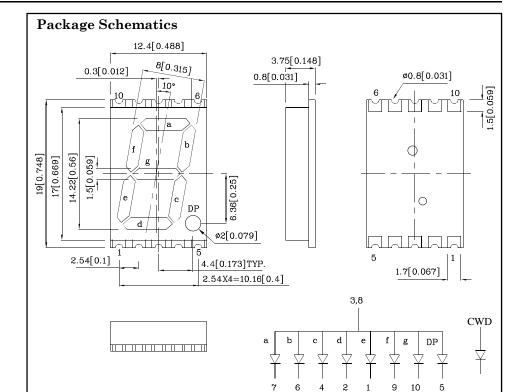






# ATTENTION OBSERVE PRECAUTIONS

FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



- 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
- 2. Specifications are subject to change without notice.
- 3. The gap between the reflector and PCB shall not exceed 0.25mm.

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	$i_{\mathrm{FS}}$	150	mA	
Power Dissipation	$P_{D}$	120	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	-0	
Electrostatic Discharge Thresho (HBM)	250	V		

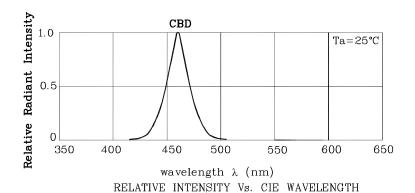
Operating Characteristic (TA=25°C)	CWD (InGaN)	Unit	
Forward Voltage (Typ.) (IF=10mA)	$V_{\mathrm{F}}$	3.0	V
Forward Voltage (Max.) (IF=10mA)	$V_{\rm F}$	4.0	V
Reverse Current (Max.) (VR=5V)	IR	50	uA
Chromaticity Coordinates	X	0.31	
(Тур.)	Y	0.31	
Capacitance (Typ.) (VF=0V, f=1MHz)	С	100	pF

Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I <sub>F</sub> =10mA) ucd		Description
			min.	typ.	
XZFCWD14A	White	InGaN	21000*	37990*	Common Anode, Rt. Hand Decimal.

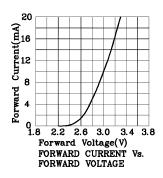
<sup>\*</sup>Luminous intensity value is in accordance with CIE127-2007 standards.

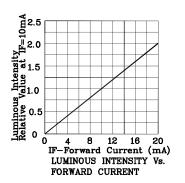


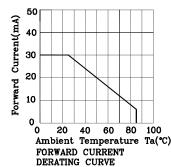


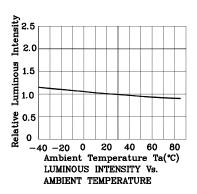


### **&** CWD



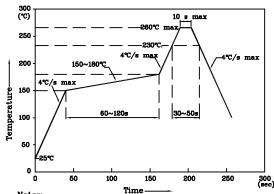






LED is recommended for reflow soldering and soldering profile is shown below.

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



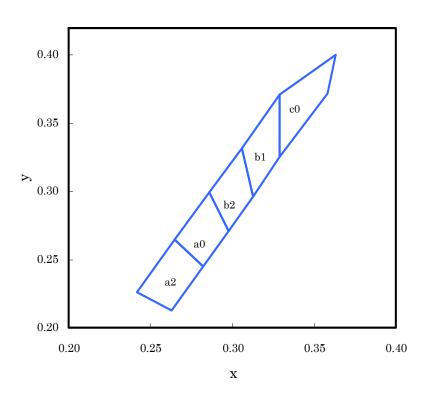
- Notes:
  1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions





# XZFCWD14A

# White CIE



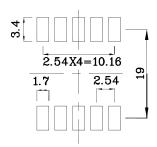
	X	У		X	У		X	У
a2	0.263	0.213	а0	0.282	0.245	b2	0.298	0.271
	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

# Notes:

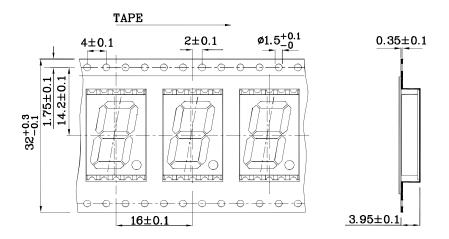
Shipment may contain more than one chromaticity regions. Orders for single chromaticity region are generally not accepted. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01.$ 

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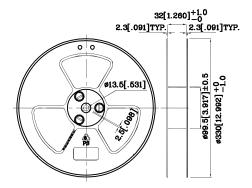
# ❖ Recommended Soldering Pattern (Units: mm; Tolerance: ±0.15)



# \* Tape Specification (Units:mm)



### **❖** Reel Dimension



#### 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:

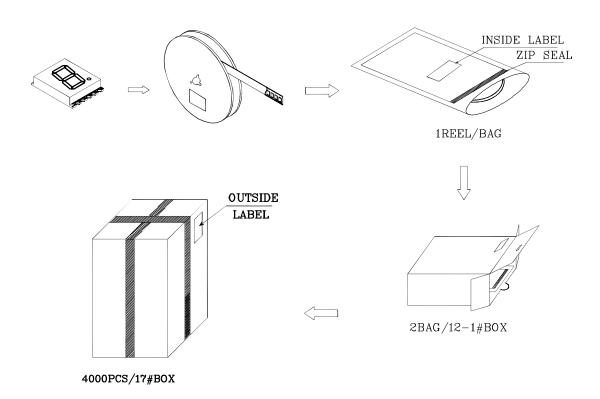
- 1. Measurement tolerance of the chromaticity coordinates is  $\pm 0.01$ .
- 2. Luminous Intensity/ Luminous Flux: +/-15%
- 3. Forward Voltage:  $\pm$ -0.1V

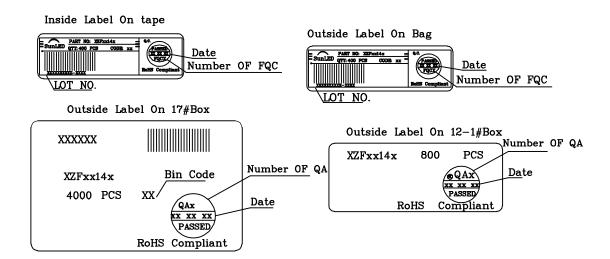
Note: Accuracy may depend on the sorting parameters.





#### 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.
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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>