

### Part Number: XZFBBA10C

SURFACE MOUNT DISPLAY

### **Features**

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



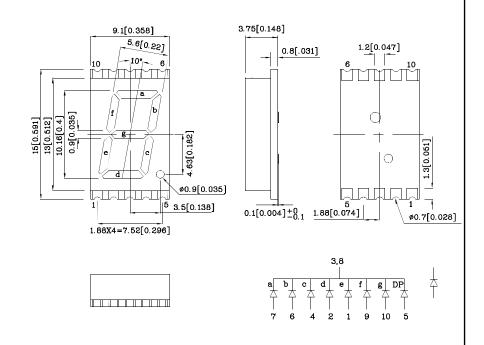




### ATTENTION

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

# **Package Schematics**



### Notes

- 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)	Blue (InGaN)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{\mathrm{FS}}$	100	mA	
Power Dissipation	$P_{D}$	120	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	•C	
Storage Temperature	Tstg	-40 ~ +85		
Electrostatic Discharge Thresho (HBM)	1000	V		

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°C)	Blue (InGaN)	Unit			
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	3.05	V		
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	4	V		
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	10	uA		
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	sion CIE127-2007* (Typ.) λP 468*				
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λD	465*	nm		
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	$\triangle \lambda$	21	nm		
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	100	pF		

Par Num		_	Emitting Material	CIE $127$ : ( $I_{ m F}$ = $10$ i ucd	2007* mA)	wavelength CIE127-2007* nm λP	Description
				min.	typ.		
XZFBB	A10C	Blue	InGaN	2200*	5190*	468*	Common Cathode, Rt.Hand Decimal.

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

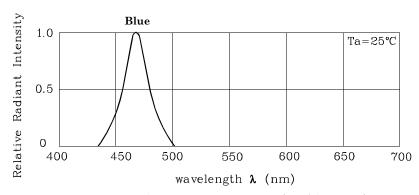
Oct 13.2016

XDSA9141 V8-Z Layout: Maggie L.



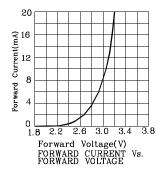


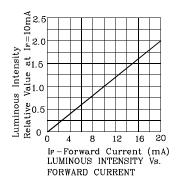
### SURFACE MOUNT DISPLAY

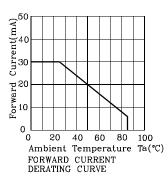


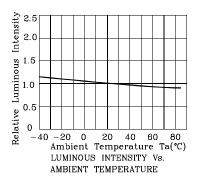
RELATIVE INTENSITY Vs. CIE WAVELENGTH

### **♦** Blue



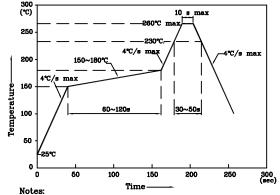






# LED is recommended for reflow soldering and soldering profile is shown below.

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

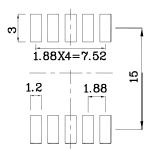


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

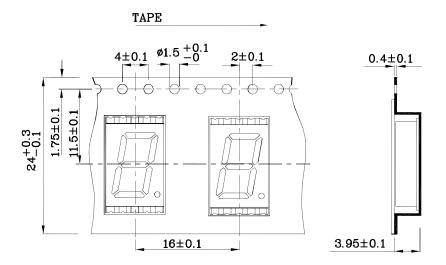




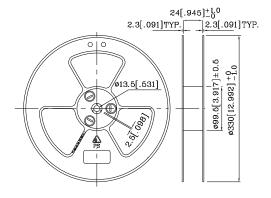
# **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.15)



# \* Tape Specification (Units:mm)



### **❖** Reel Dimension



### Remarks:

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

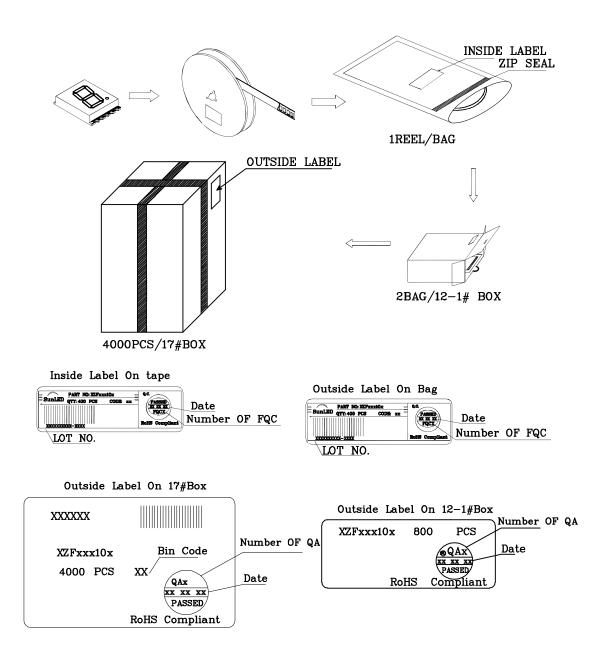
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage:  $\pm$ -0.1V

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.
- 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 http://www.SunLEDusa.com/TechnicalNotes.asp