

# Part Number: XZFBBA07A2

SURFACE MOUNT DISPLAY

#### **Features**

- 0.3 inch digit height
- Robust package
- Low power consumption
- Standard configuration: Gray face w/ white segments
- Standard Package: 300pcs/ Reel • MSL (Moisture Sensitivity Level): 2a
- RoHS Compliant

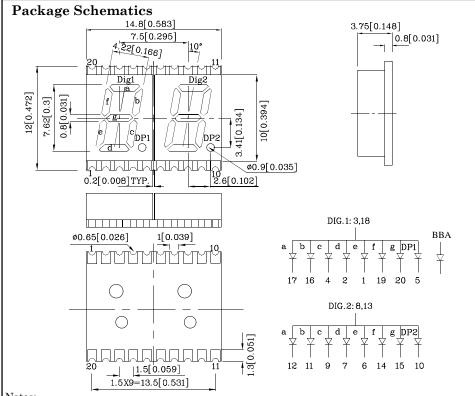






# ATTENTION OBSERVE PRECAUTIONS

FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



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)		BBA (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 Threshold (HBM)		1000	V	

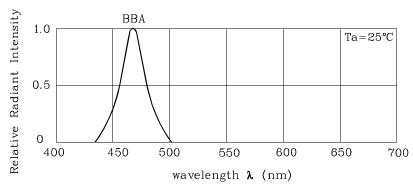
Operating Characteristics (T <sub>A</sub> =25°C)	BBA (InGaN)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	3.05	V
Forward Voltage (Max.) ( $I_F$ =10mA)	$V_{\mathrm{F}}$	4	V
Reverse Current (Max.) ( $V_R$ =5 $V$ )	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$	ssion CIE127-2007* (Typ.) λP 468*		nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$	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

Part Number	Emitting Color	Emitting Material	$\begin{array}{c} Luminous\ Intensity\\ CIE127\text{-}2007^*\\ (I_F\text{=}10\text{mA})\\ ucd \end{array}$	Wavelength CIE127-2007* nm λP	Description
			min. typ.		
XZFBBA07A2	Blue	InGaN	1400* 2490*	468*	Common Anode, Rt.Hand Decimal.

<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards. Jan 08,2014

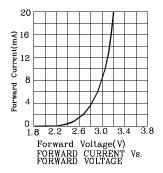


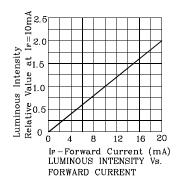


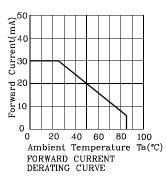


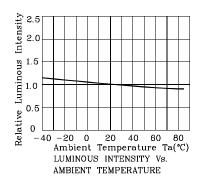
RELATIVE INTENSITY Vs. CIE WAVELENGTH

## **❖** BBA



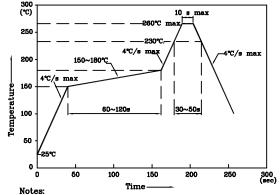






# LED is recommended for reflow soldering and soldering profile is shown below.

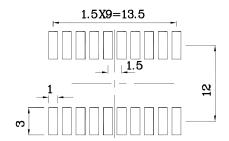
Reflow Soldering Profile for SMD Products (Pb-Free Components)



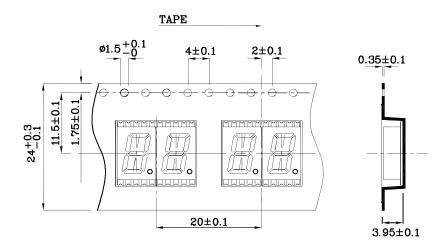
- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions



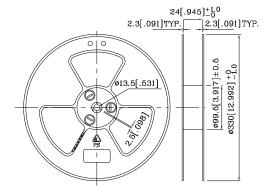
# **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.15)



# **❖** 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:

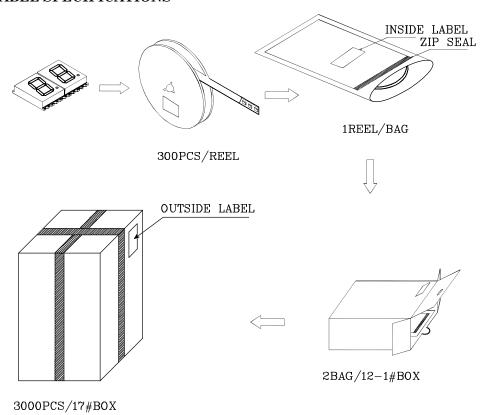
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

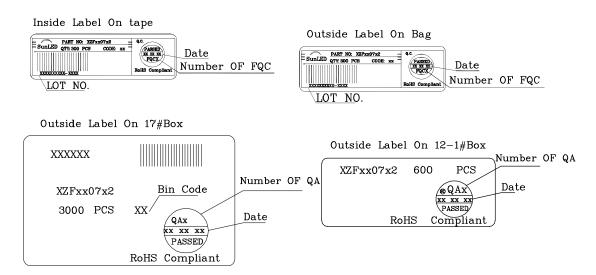
Note: Accuracy may depend on the sorting parameters.





## 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.
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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>