SunLED
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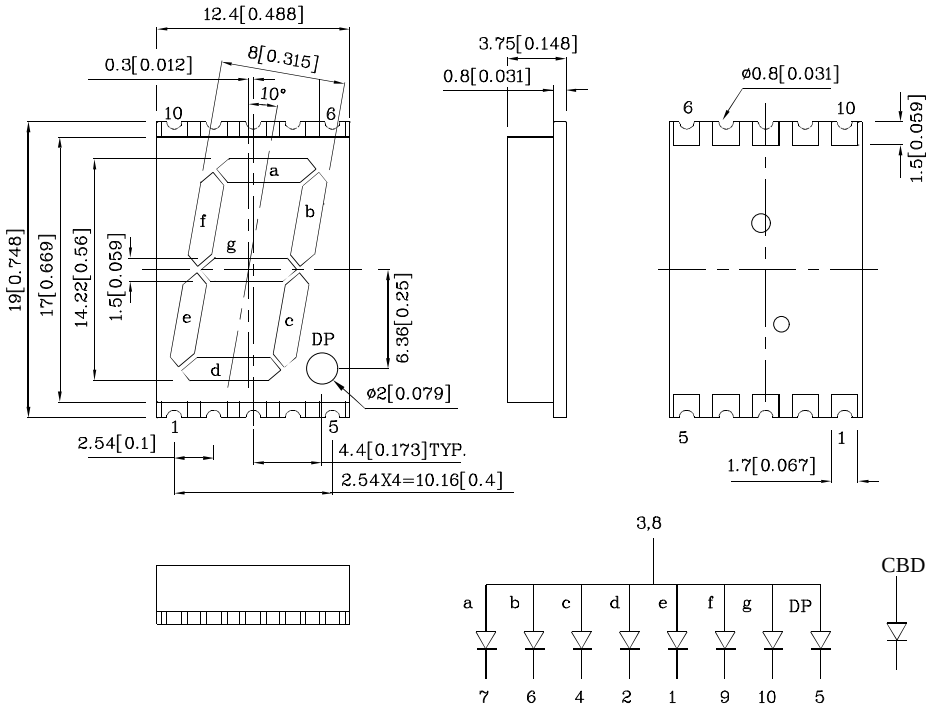
Part Number: XZFCBD14A

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

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.

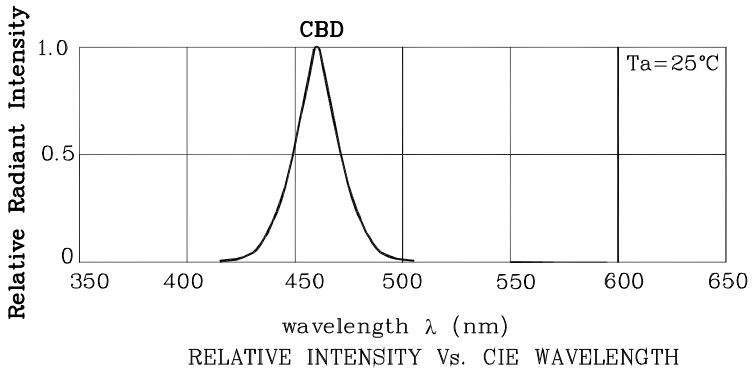
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Absolute Maximum Ratings (T_A=25°C)		**CBD (InGaN)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA
Power Dissipation	P_D	120	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		250	V

Operating Characteristics (T_A=25°C)		**CBD (InGaN)**	**Unit**
Forward Voltage (Typ.) (I_F=10mA)	V_F	3	V
Forward Voltage (Max.) (I_F=10mA)	V_F	4	V
Reverse Current (Max.) (V_R=5V)	I_R	50	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I_F=10mA)	λP	460*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I_F=10mA)	λD	465*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	△λ	25	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	100	pF

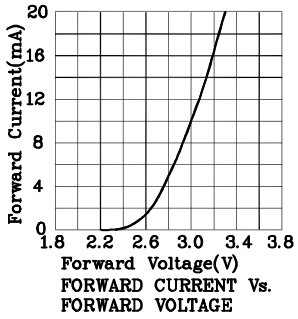
Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I_F=10mA) ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XZFCBD14A	Blue	InGaN	5600*	14990*	460*	Common Anode,Rt. Hand Decimal.

*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

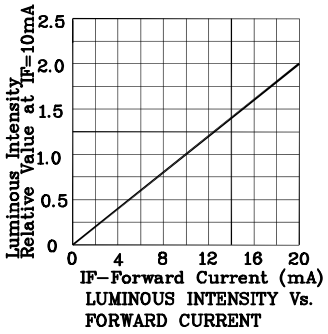


RELATIVE INTENSITY Vs. CIE WAVELENGTH

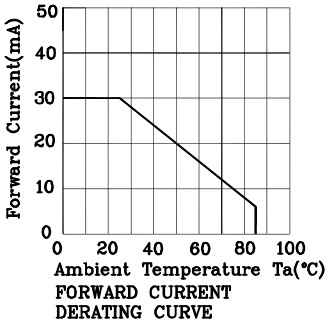
❖ **CBD**



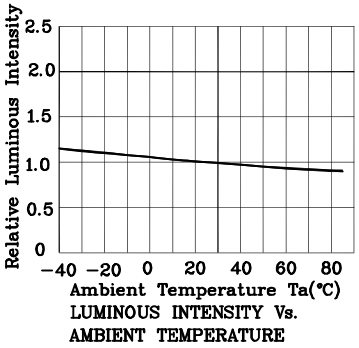
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



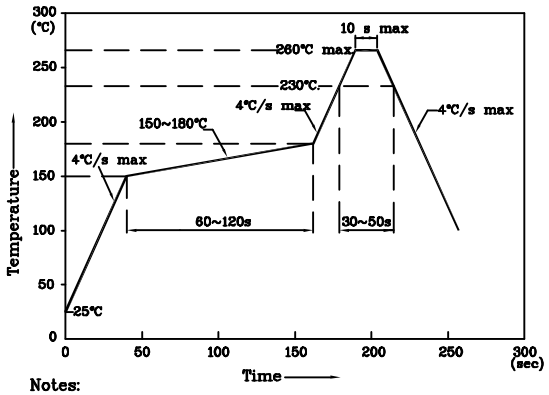
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

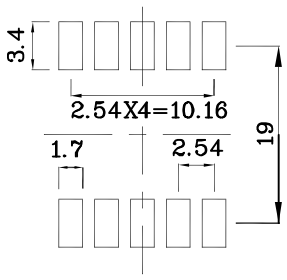
LED is recommended for reflow soldering and soldering profile is shown below.

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

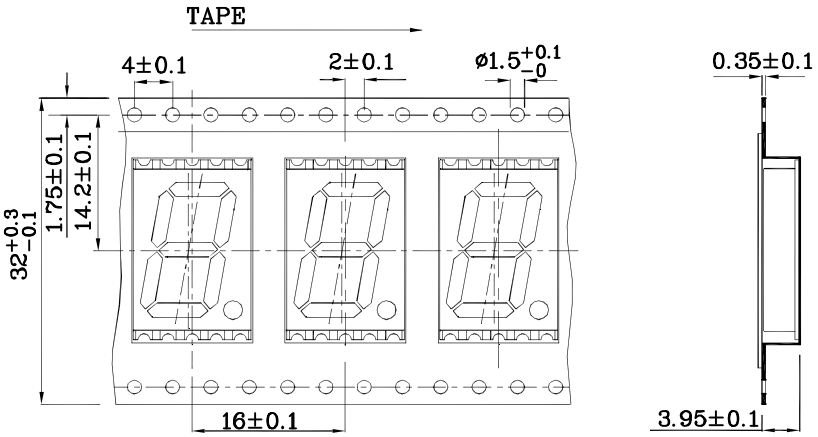


Notes:
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C–260°C
3. Do not put stress to the epoxy resin during high temperatures conditions

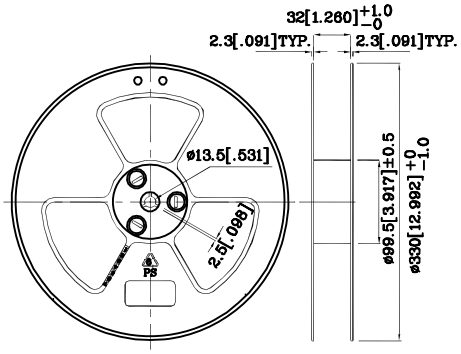
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ±0.15)



❖ Tape Specification (Units : mm)

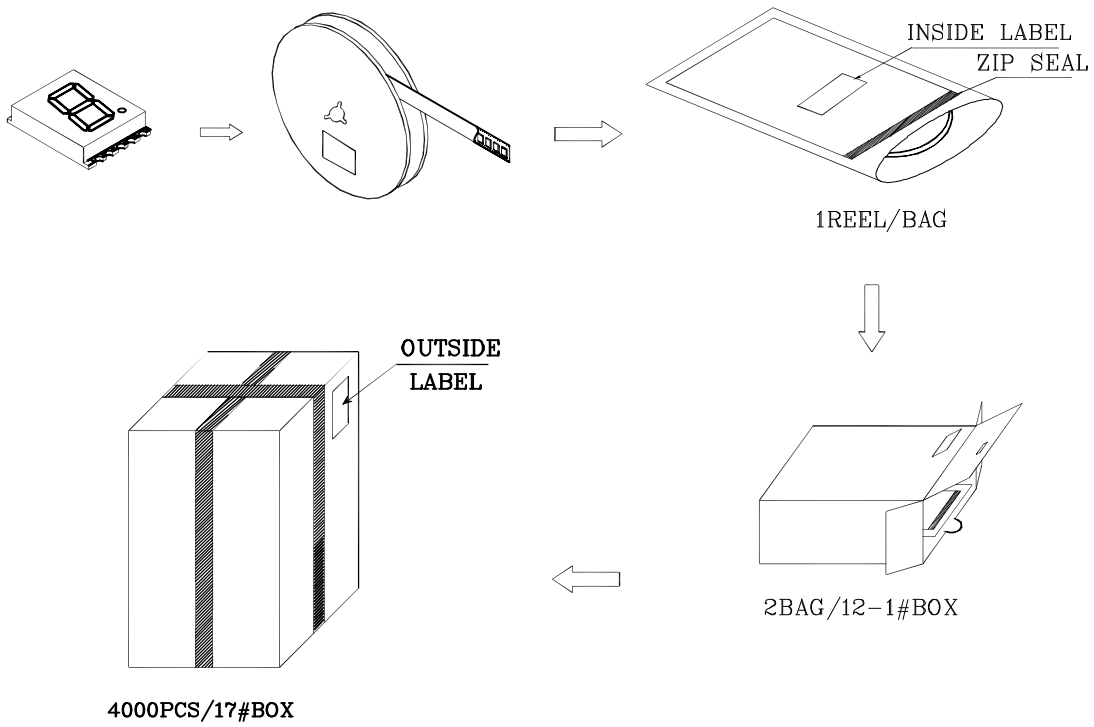


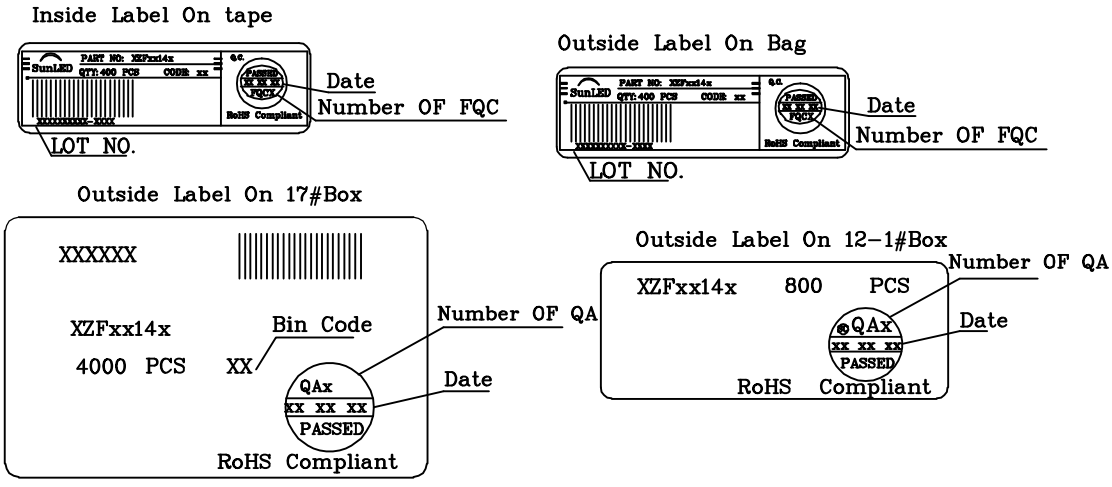
❖ Reel Dimension



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.
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