

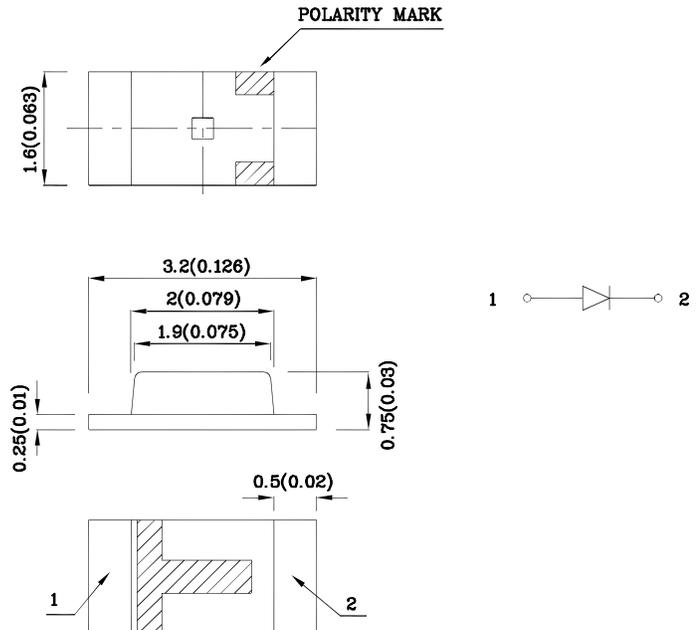
### Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant



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

### Package Schematics



**Notes:**

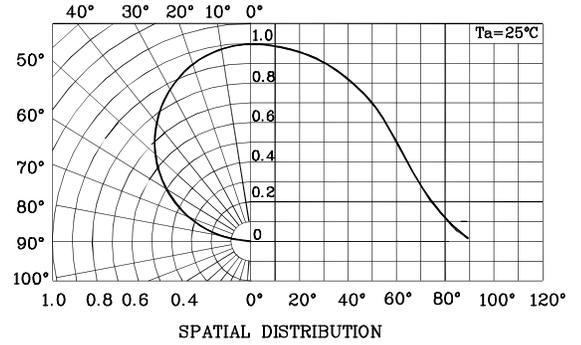
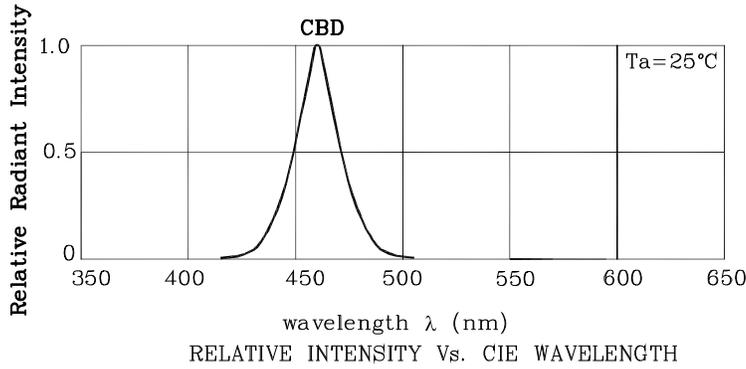
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$  unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		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	$T_{stg}$	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		250	V

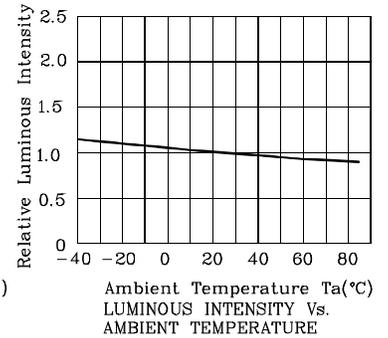
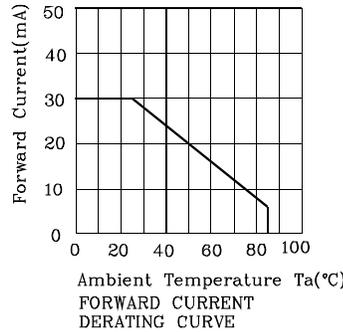
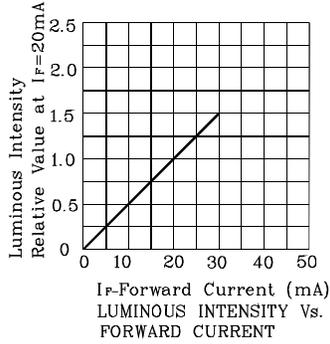
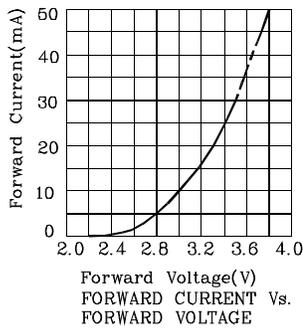
Operating Characteristics ( $T_A=25^\circ\text{C}$ )		CBD (InGaN)	Unit
Forward Voltage (Typ.) ( $I_F=20\text{mA}$ )	$V_F$	3.3	V
Forward Voltage (Max.) ( $I_F=20\text{mA}$ )	$V_F$	4	V
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	50	$\mu\text{A}$
Wavelength of Peak Emission CIE127-2007*(Typ.) ( $I_F=20\text{mA}$ )	$\lambda_P$	460*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) ( $I_F=20\text{mA}$ )	$\lambda_D$	465*	nm
Spectral Line Full Width At Half-Maximum (Typ.) ( $I_F=20\text{mA}$ )	$\Delta\lambda$	25	nm
Capacitance (Typ.) ( $V_F=0\text{V}$ , $f=1\text{MHz}$ )	C	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ( $I_F=20\text{mA}$ ) mcd		Wavelength CIE127-2007* nm $\lambda_P$	Viewing Angle 2 $\theta$ 1/2
				min.	typ.		
XZCBD55W-1	Blue	InGaN	Water Clear	40*	98*	460*	120°

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

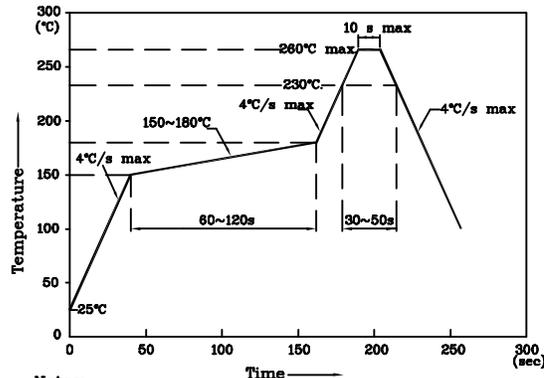


❖ CBD



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

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



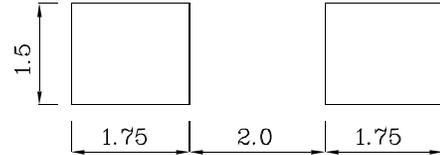
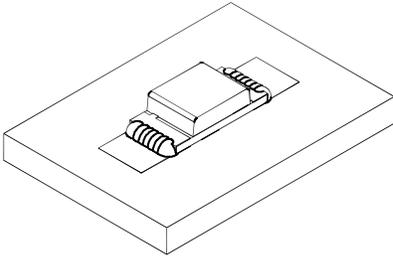
**Notes:**

1. Maximum soldering temperature should not exceed 280°C
2. Recommended reflow temperature: 145°C-260°C
3. Do not put stress to the epoxy resin during high temperatures conditions

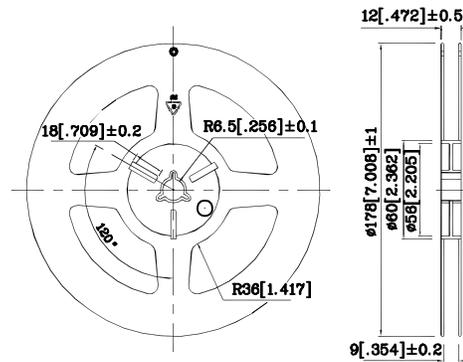


❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.

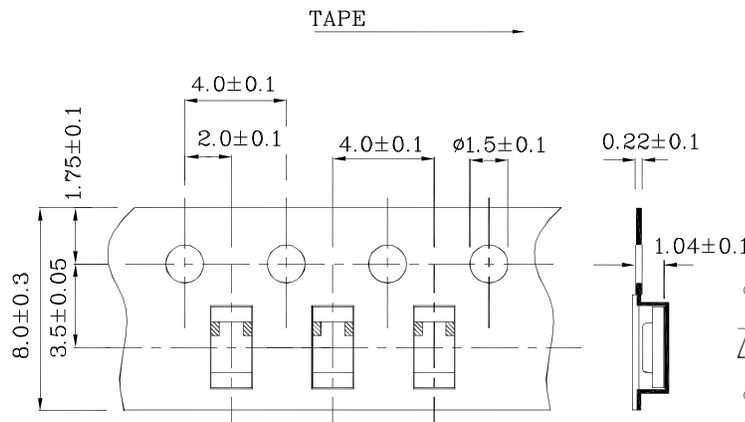
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )



❖ Reel Dimension



❖ Tape Specification (Units : mm)



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:  $\pm 1\text{nm}$
2. Luminous intensity / luminous flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.

