

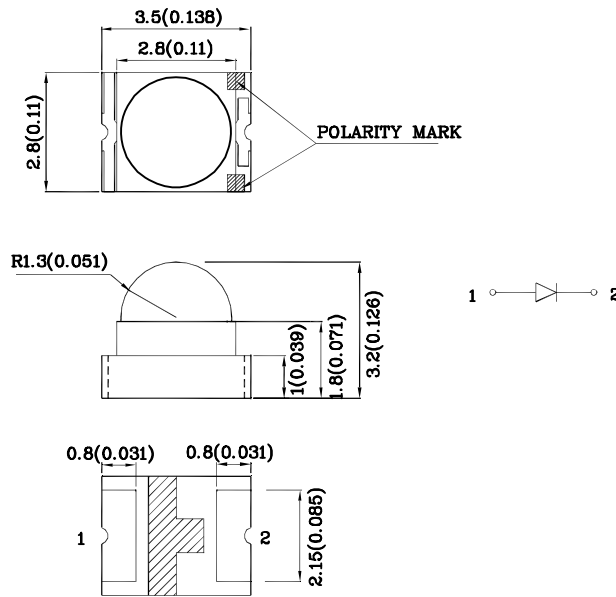
**Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 500pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant



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

**Package Schematics**



**Notes:**

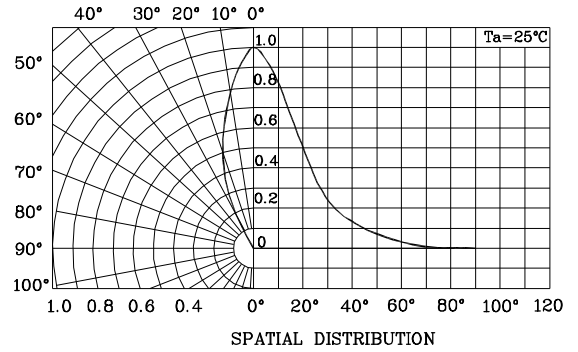
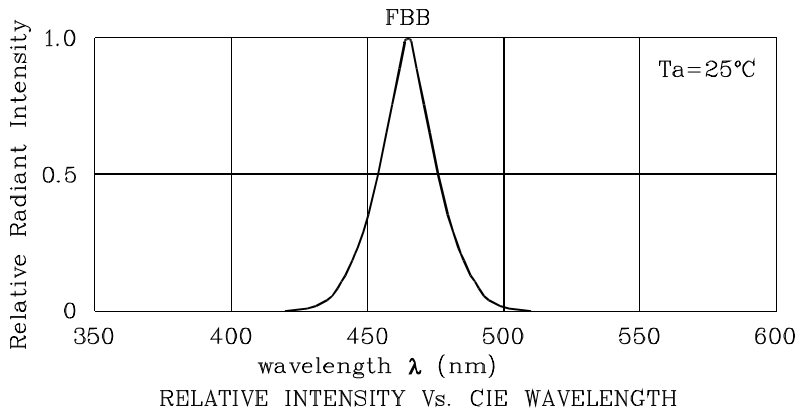
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		FBB (InGaN)	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	100	mA
Power Dissipation	P <sub>D</sub>	120	mW
Operating Temperature	T <sub>A</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		250	V

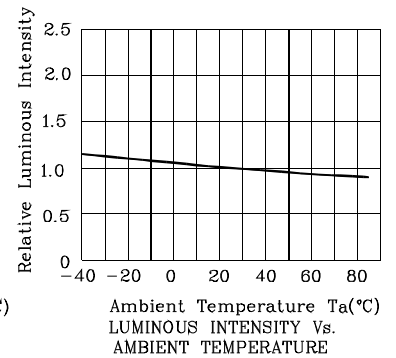
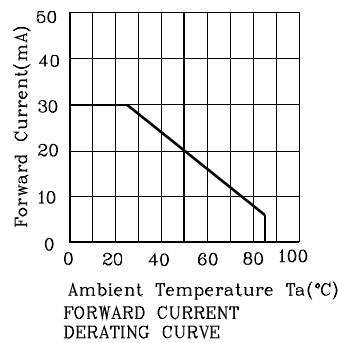
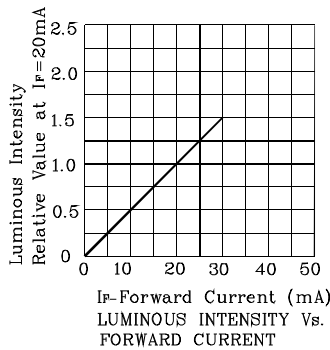
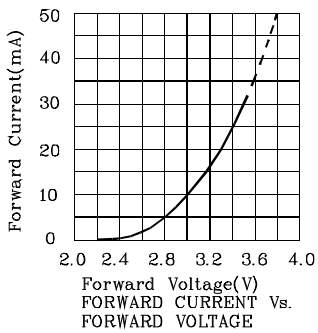
Operating Characteristics (T <sub>A</sub> =25°C)		FBB (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	3.3	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	4	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	I <sub>R</sub>	50	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I <sub>F</sub> =20mA)	λ <sub>P</sub>	465*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I <sub>F</sub> =20mA)	λ <sub>D</sub>	470*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	22	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λ <sub>P</sub>	Viewing Angle 2θ 1/2
				min.	typ.		
ZFBB45W-2	Blue	InGaN	Water Clear	500*	745*	465*	40°

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

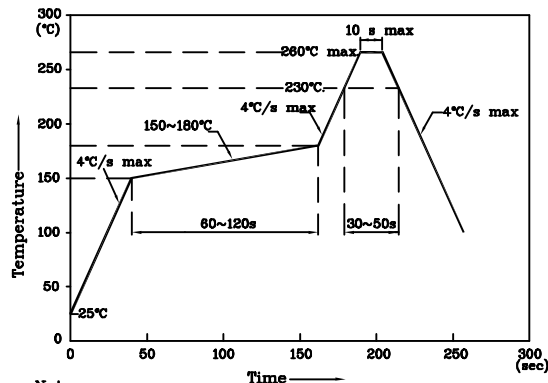


❖ FBB



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

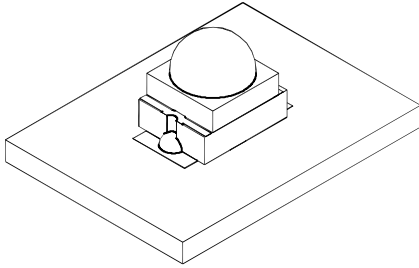
**Reflow Soldering Profile for SMD Products (Pb-Free Components)**



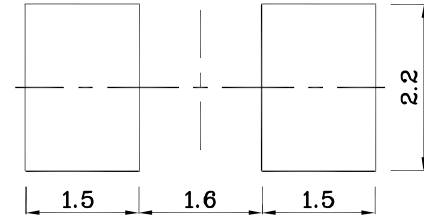
- Notes:
1. Maximum soldering temperature should not exceed 260°C
  2. Recommended reflow temperature: 145°C-260°C
  3. Do not put stress to the epoxy resin during high temperatures conditions



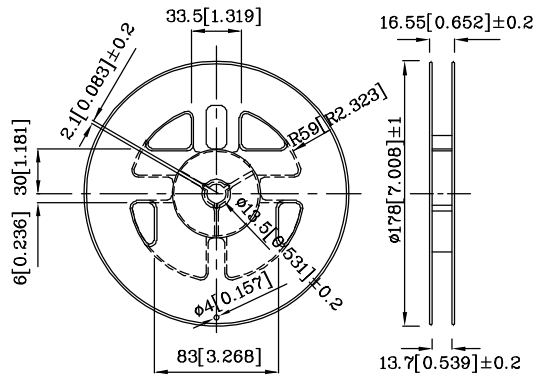
❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.



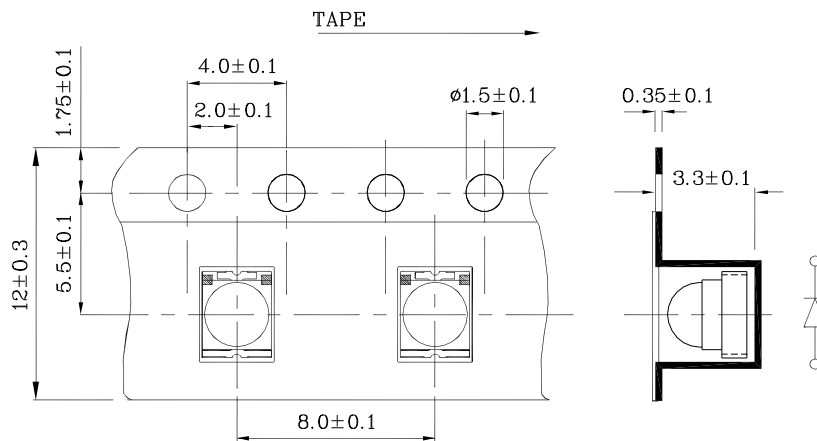
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance: ± 0.1)



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

Note: Accuracy may depend on the sorting parameters.

