

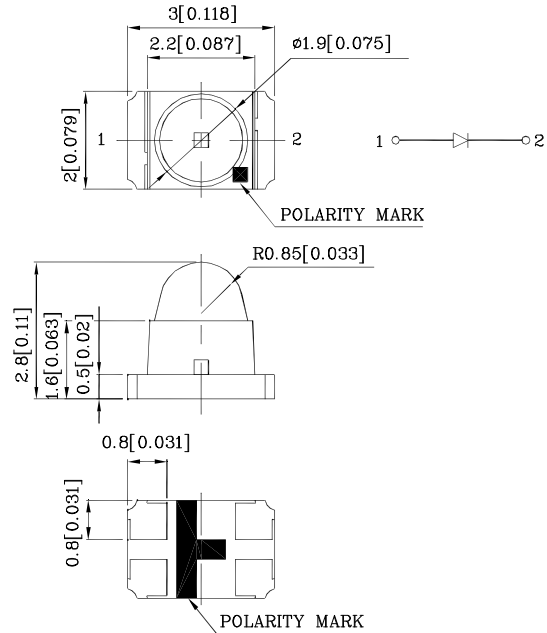
### Features

- Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Tinned pads for improved solderability
- Package : 2000pcs / reel
- Moisture sensitivity level : level 3
- RoHS compliant



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

### Package Schematics



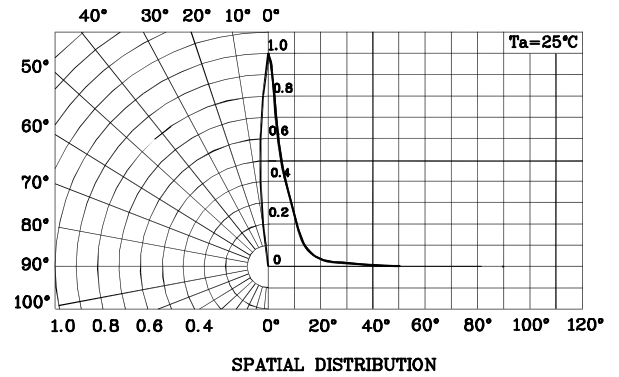
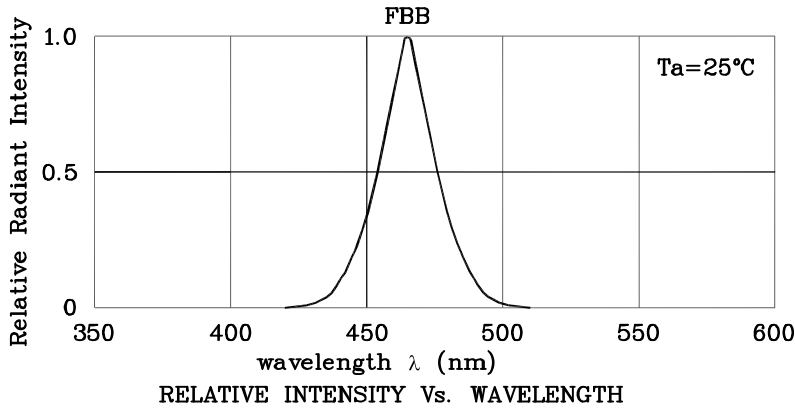
#### Notes:

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.

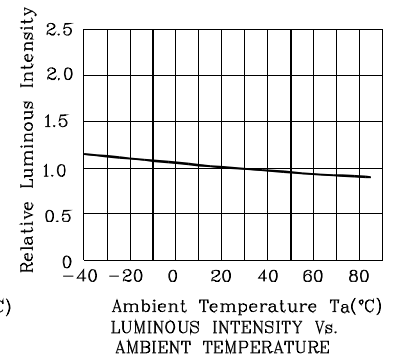
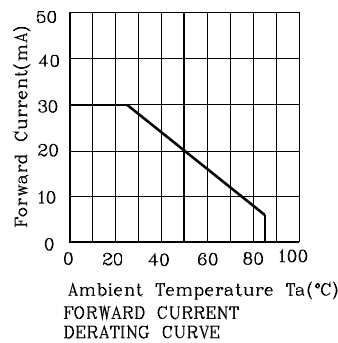
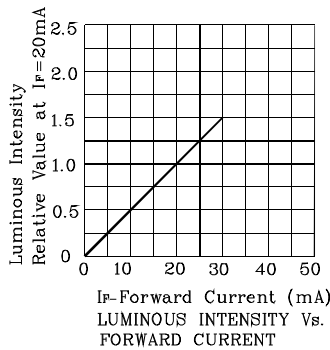
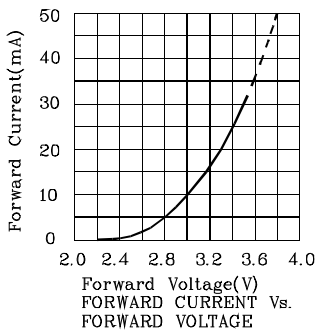
| Absolute Maximum Ratings<br>( $T_A=25^\circ\text{C}$ )         |           | FBB<br>(InGaN) | Unit |
|--|-----------|----------------|------|
| Reverse Voltage  | $V_R$     | 5              | V    |
| Forward Current  | $I_F$     | 30             | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{FS}$  | 100            | mA   |
| Power Dissipation  | $P_D$     | 120            | mW   |
| Operating Temperature  | $T_A$     | -40 ~ +85      | °C   |
| Storage Temperature  | $T_{stg}$ | -40 ~ +85      |      |
| Electrostatic Discharge Threshold<br>(HBM)                     |           | 250            | V    |

| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                     |                 | FBB<br>(InGaN) | Unit          |
|---|-----------------|----------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=20\text{mA}$ )                             | $V_F$           | 3.3            | V             |
| Forward Voltage (Max.)<br>( $I_F=20\text{mA}$ )                             | $V_F$           | 4              | V             |
| Reverse Current (Max.)<br>( $V_R=5\text{V}$ )                               | $I_R$           | 50             | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission (Typ.)<br>( $I_F=20\text{mA}$ )              | $\lambda_P$     | 465            | nm            |
| Wavelength of Dominant<br>Emission (Typ.)<br>( $I_F=20\text{mA}$ )          | $\lambda_D$     | 470            | nm            |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>( $I_F=20\text{mA}$ ) | $\Delta\lambda$ | 22             | nm            |
| Capacitance (Typ.)<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                 | C               | 100            | pF            |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous<br>Intensity<br>( $I_F=20\text{mA}$ )<br>mcd |      | Wavelength<br>nm<br>$\lambda_P$ | Viewing<br>Angle<br>2 $\theta$ 1/2 |
|----------------|-------------------|----------------------|-------------|---|------|---------------------------------|------------------------------------|
|                |                   |                      |             | min.  | typ. |                                 |                                    |
| ZFBB50WT-2     | Blue              | InGaN                | Water Clear | 650   | 795  | 465                             | 10°                                |



❖ FBB



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

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

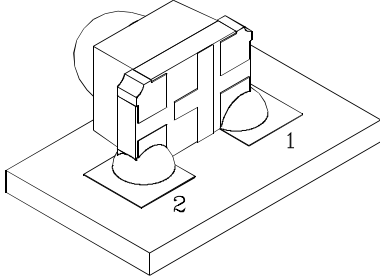


**Notes:**

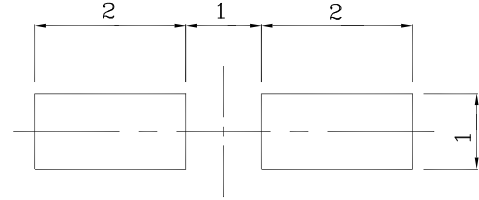
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C-260°C
3. Do not put stress to the epoxy resin during high temperatures conditions



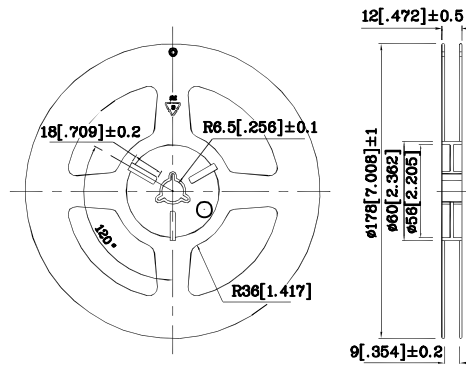
❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.



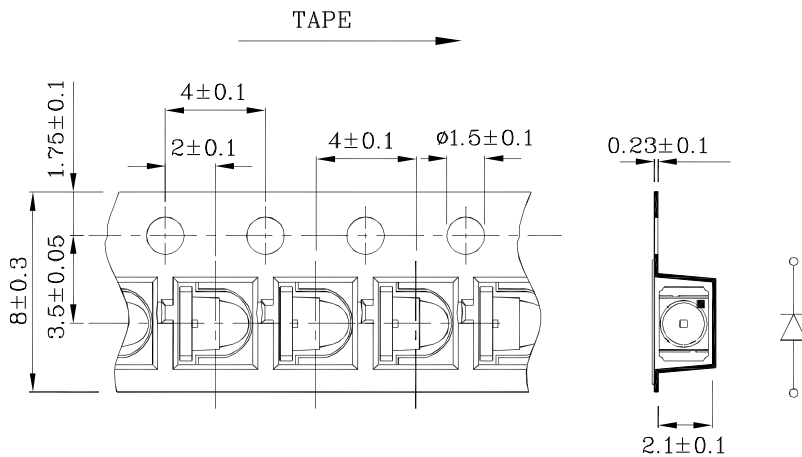
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



Remarks:

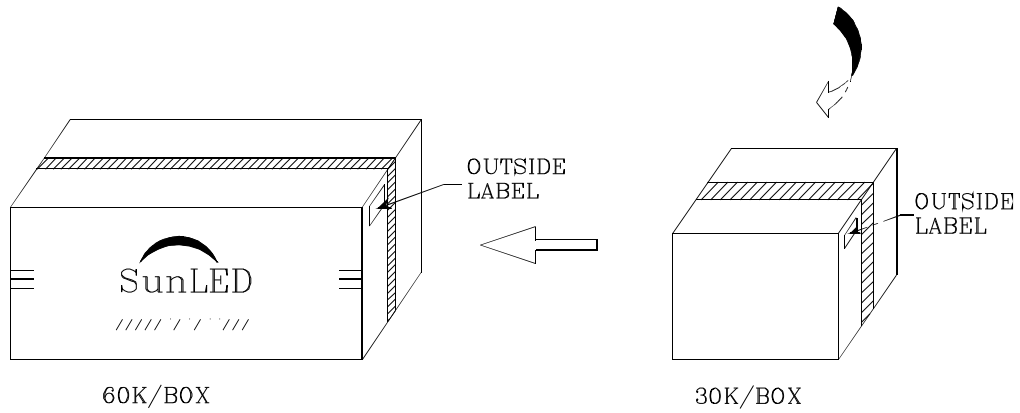
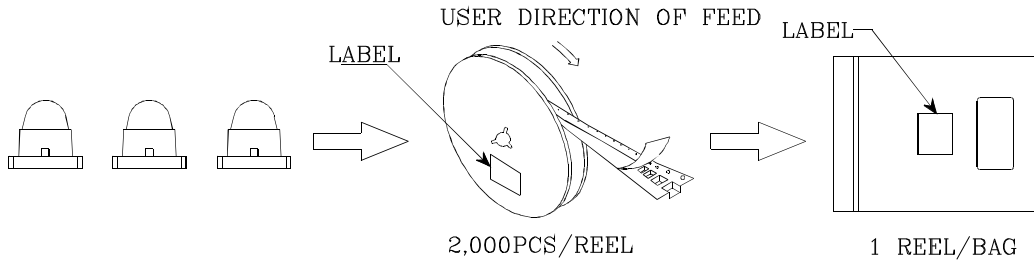
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


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

Note: Accuracy may depend on the sorting parameters.



**PACKING & LABEL SPECIFICATIONS**






Q.C. Q C

XX XX XXXX

PASSED

|  |           |
|--|-----------|
| P/NO : Zxxx50x   |           |
| QTY : 2,000 pcs  | CODE: XXX |
| S/N : XX   |           |
| LOT NO :   |           |
| <br>XXXXXXXXXXXXXXXXXXXXXXXXXXXX |           |
| RoHS Compliant   |           |