



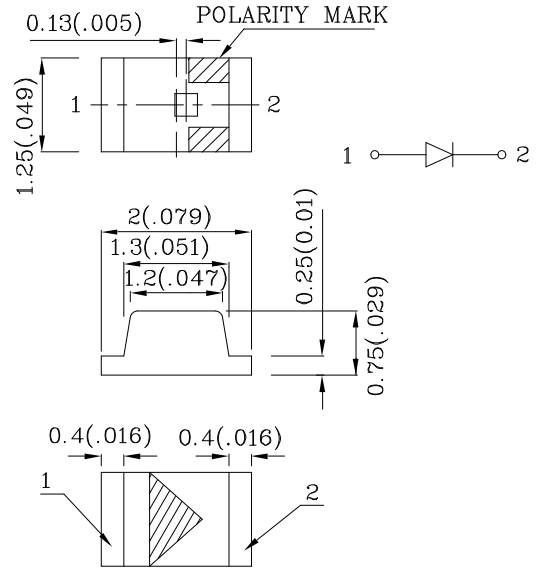
PRELIMINARY SPEC

Features

- 2.0mmx1.25mm SMT LED,0.75mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



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



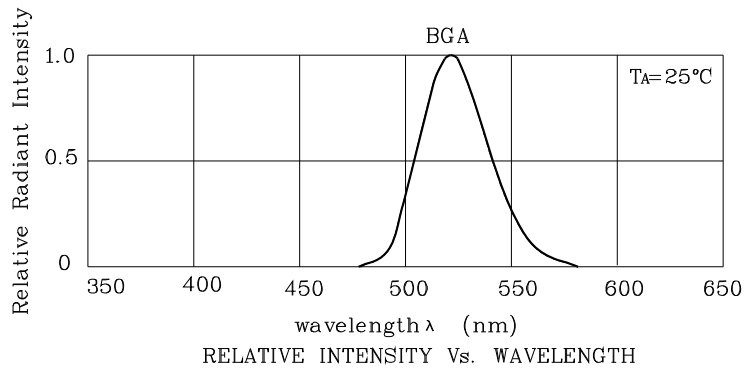
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

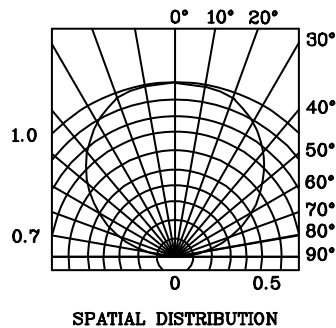
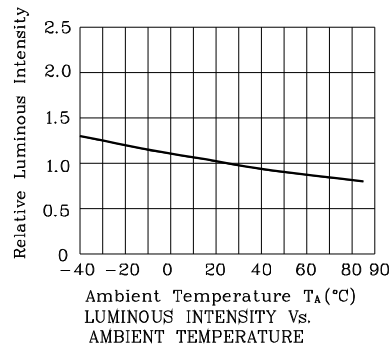
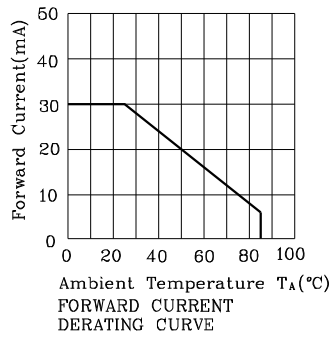
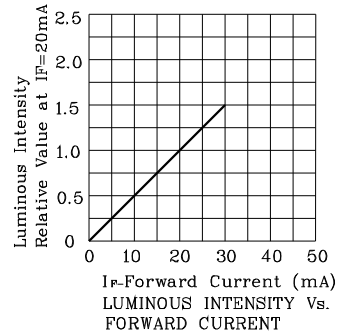
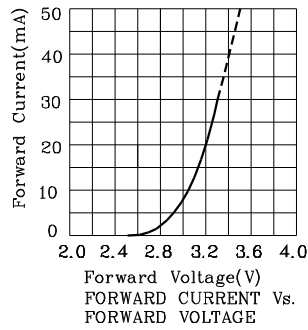
| Absolute Maximum Ratings<br>(TA=25°C)                          |      | BGA<br>(InGaN) | Unit |
|--|------|----------------|------|
| Reverse Voltage  | VR   | 5              | V    |
| Forward Current  | IF   | 30             | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS  | 100            | mA   |
| Power Dissipation  | PT   | 120            | mW   |
| Operating Temperature  | TA   | -40 ~ +85      | °C   |
| Storage Temperature  | Tstg | -40 ~ +85      |      |
| Electrostatic Discharge Threshold<br>(HBM)                     |      | 1000           | V    |

| Operating Characteristics<br>(TA=25°C)                          |                 | BGA<br>(InGaN) | Unit |
|---|-----------------|----------------|------|
| Forward Voltage (Typ.)<br>(IF=20mA)                             | VF              | 3.2            | V    |
| Forward Voltage (Max.)<br>(IF=20mA)                             | VF              | 4.0            | V    |
| Reverse Current (Max.)<br>(VR=5V)                               | IR              | 10             | uA   |
| Wavelength Of Peak<br>Emission (Typ.)<br>(IF=20mA)              | $\lambda P$     | 520            | nm   |
| Wavelength Of Dominant<br>Emission (Typ.)<br>(IF=20mA)          | $\lambda D$     | 525            | nm   |
| Spectral Line Full Width At<br>Half-Maximum (Typ.)<br>(IF=20mA) | $\Delta\lambda$ | 35             | nm   |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)                           | C               | 100            | pF   |

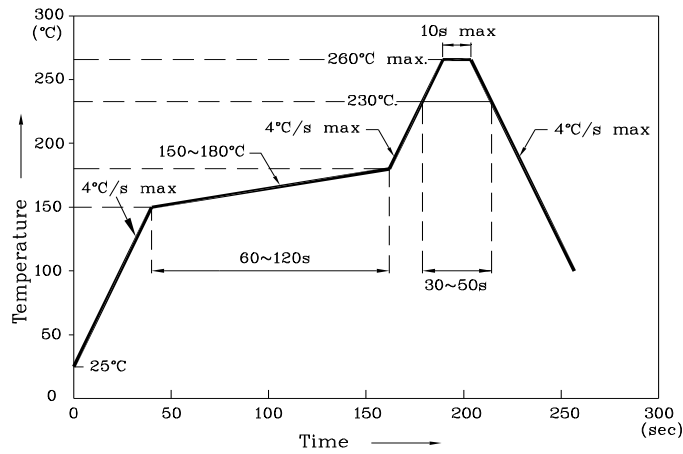
| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous<br>Intensity<br>(IF=20mA)<br>mcd |      | Wavelength<br>nm<br>$\lambda P$ | Viewing<br>Angle<br>2 $\theta$ 1/2 |
|----------------|-------------------|----------------------|-------------|---|------|---------------------------------|------------------------------------|
|                |                   |                      |             | min.                                      | typ. |                                 |                                    |
| ZBGA54W-1      | Green             | InGaN                | Water Clear | 50  | 178  | 520                             | 120°                               |



❖ BGA



Reflow Soldering Profile For Lead-free SMT Process.

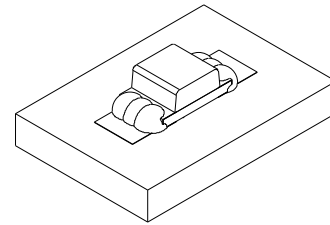


Notes:

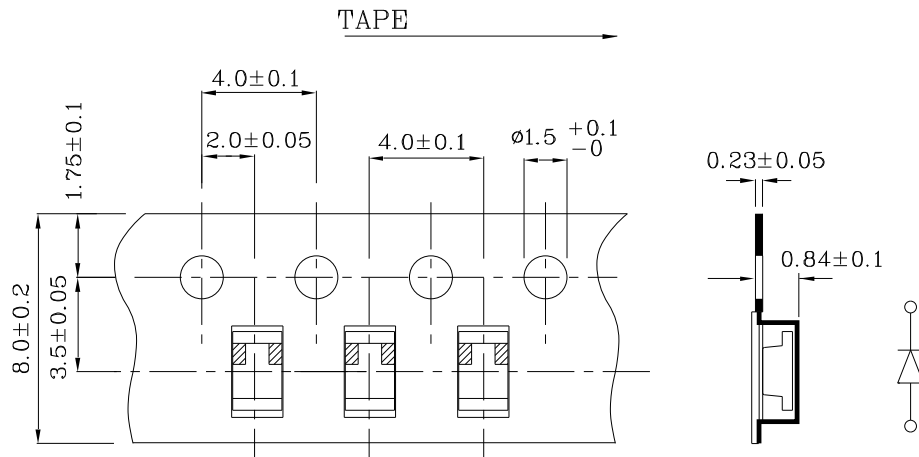
1. Maximum soldering temperature should not exceed 260°C.
2. Recommended reflow temperature: 145°C-260°C.
3. Do not put stress to the epoxy resin during high temperatures conditions.

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

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



❖ Tape Specification (Units : mm)



Remarks:

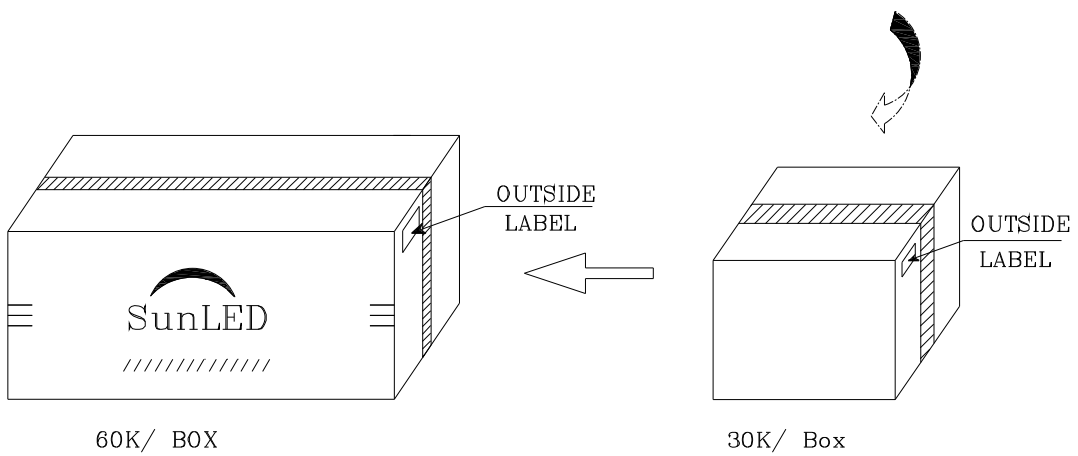
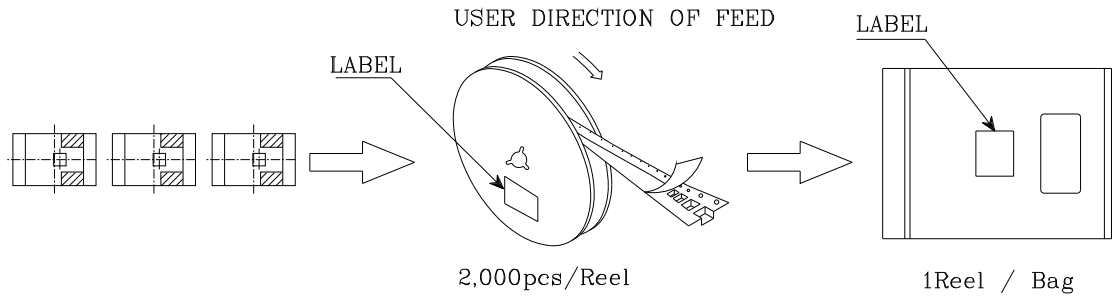
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

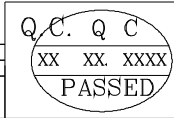

Note: Accuracy may depend on the sorting parameters.

**PACKING & LABEL SPECIFICATIONS**

**ZBGA54W-1**





|  |           |
|--|-----------|
|                              |           |
| P/NO : Zxxx54x-1   |           |
| QTY : 2,000 pcs  | CODE: XXX |
| S/N : XX   |           |
| LOT NO:  |           |
| <br>xxxxxxxxxxxxxxxxxxxxxxxx |           |
| RoHS Compliant   |           |