

PRELIMINARY SPEC

**Features**

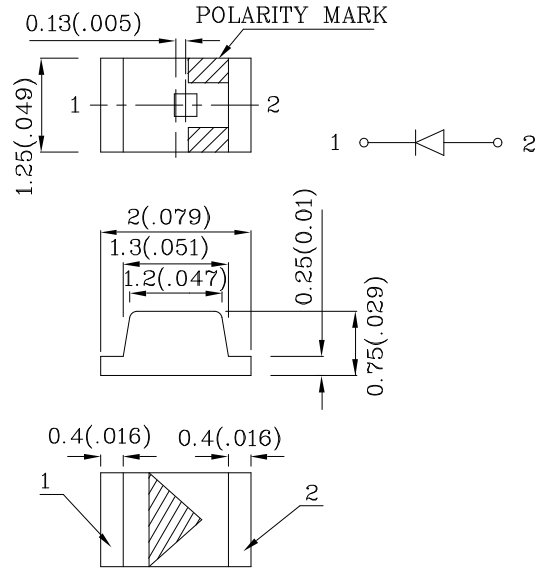
- 2.0mmx1.25mm SMT LED,0.75mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



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

Notes:

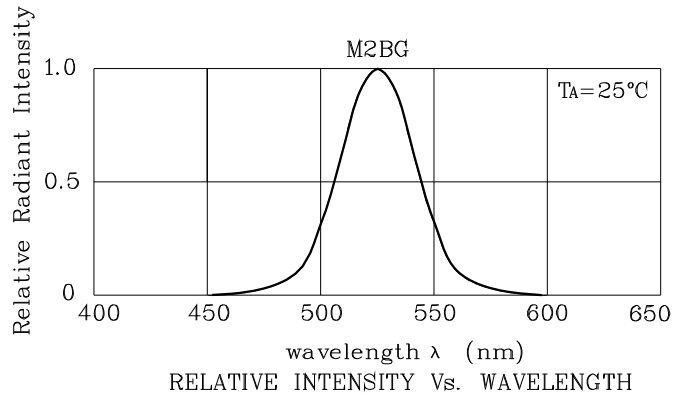
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$ " unless otherwise noted.
- 3.Specifications are subject to change without notice.



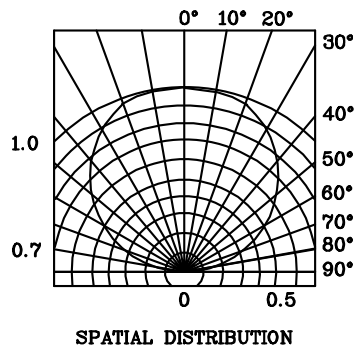
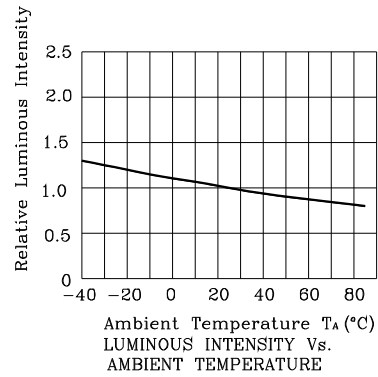
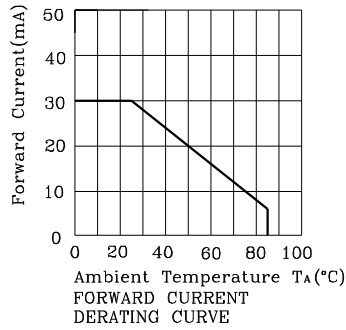
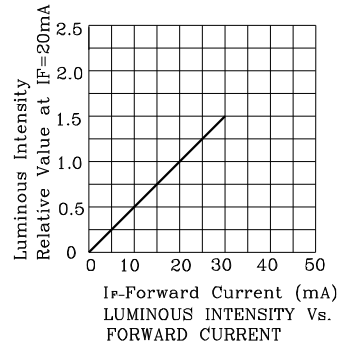
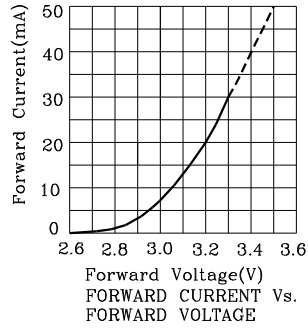
| Absolute Maximum Ratings<br>(TA=25°C)                          |                  | M2BG<br>(InGaN) | Unit |
|--|------------------|-----------------|------|
| Reverse Voltage  | V <sub>R</sub>   | 5               | V    |
| Forward Current  | I <sub>F</sub>   | 30              | mA   |
| Forward Current (peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | i <sub>FS</sub>  | 100             | mA   |
| Power Dissipation  | P <sub>T</sub>   | 111             | mW   |
| Operating Temperature  | T <sub>A</sub>   | -40 ~ +85       | °C   |
| Storage Temperature  | T <sub>stg</sub> | -40 ~ +85       |      |
| Electrostatic Discharge Threshold<br>(HBM)                     |                  | 1000            | V    |

| Operating Characteristics<br>(TA=25°C)                                       |                | M2BG<br>(InGaN) | Unit |
|--|----------------|-----------------|------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =20mA)                             | V <sub>F</sub> | 3.2             | V    |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =20mA)                             | V <sub>F</sub> | 3.7             | V    |
| Reverse Current (Max.)<br>(V <sub>R</sub> =5V)                               | I <sub>R</sub> | 10              | uA   |
| Wavelength Of Peak<br>Emission (Typ.)<br>(I <sub>F</sub> =20mA)              | λ P            | 525             | nm   |
| Wavelength Of Dominant<br>Emission (Typ.)<br>(I <sub>F</sub> =20mA)          | λ D            | 535             | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =20mA) | Δλ             | 39              | nm   |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | C              | 65              | pF   |

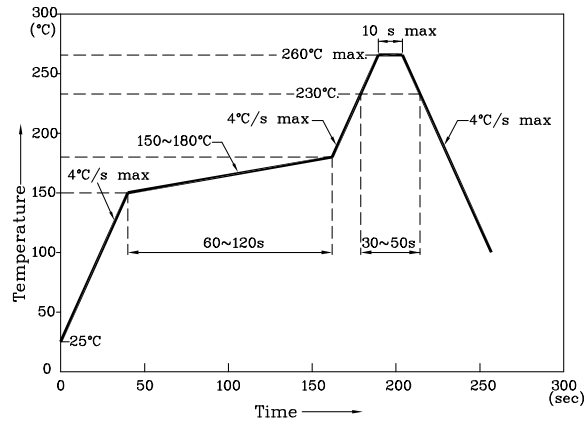
| Part Number | Emitting Color | Emitting Material | Lens-color  | Luminous Intensity<br>(I <sub>F</sub> =20mA) |      | Wavelength<br>nm<br>λ P | Viewing Angle<br>2 θ 1/2 |
|-------------|----------------|-------------------|-------------|--|------|-------------------------|--------------------------|
|             |                |                   |             | min.   | typ. |                         |                          |
| ZM2BG54W-1  | Green          | InGaN             | Water Clear | 380  | 795  | 525                     | 120°                     |



❖ M2BG



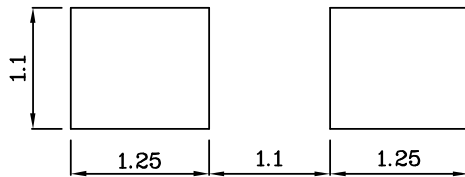
Reflow Soldering Profile For Lead-free SMT Process.



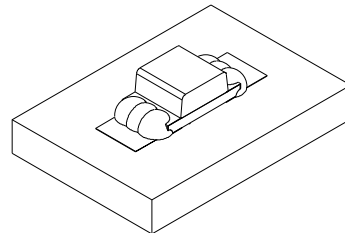
NOTES:

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.

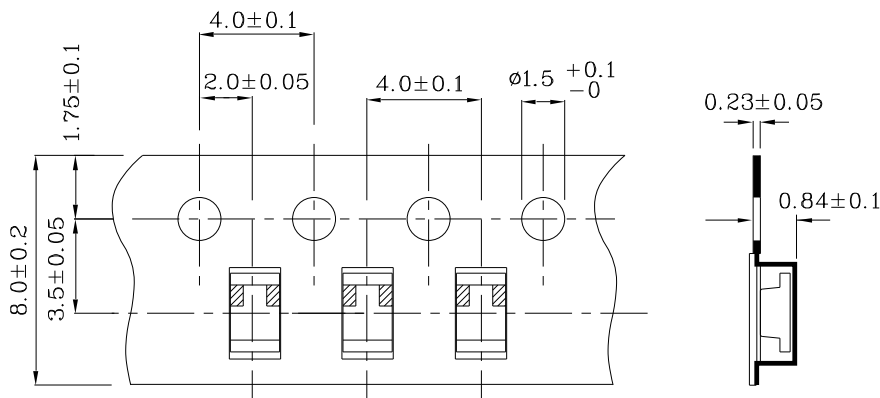
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

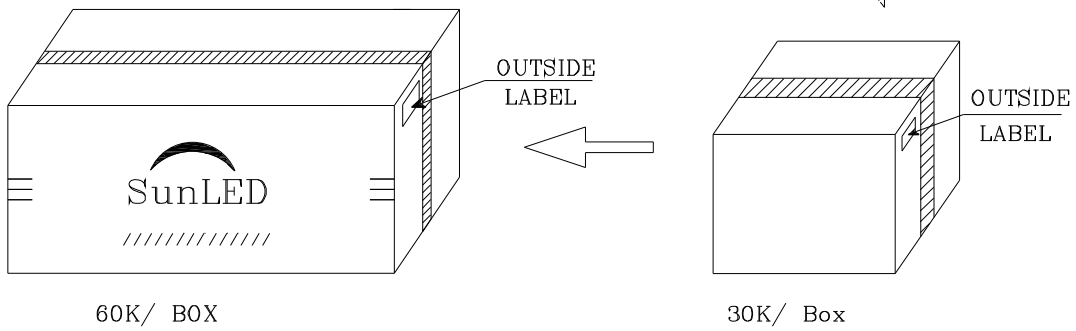
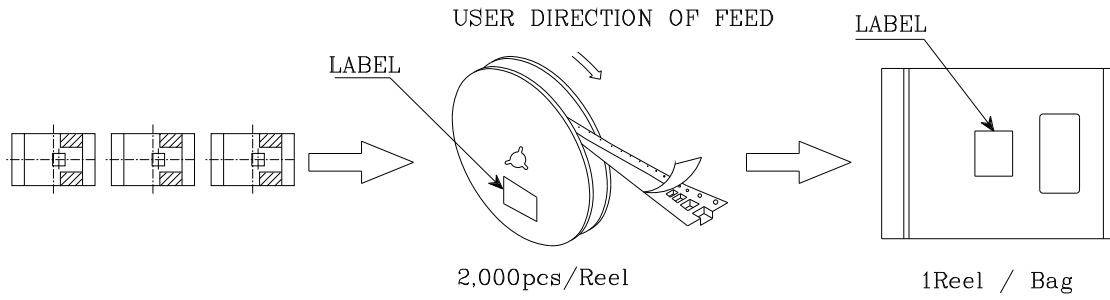

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

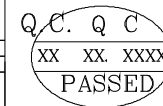

1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

**PACKING & LABEL SPECIFICATIONS**

**ZM2BG54W-1**

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