

### Features

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

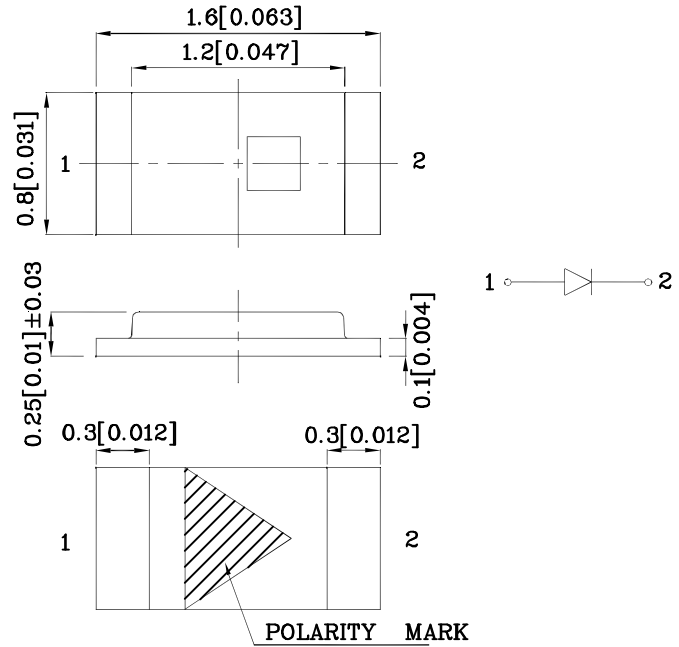


**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

### Applications

1. Mobile phone Keypad indicator and backlight .
2. Flat backlight for LCD, switch and symbol.
3. Toys.

### Package Schematics



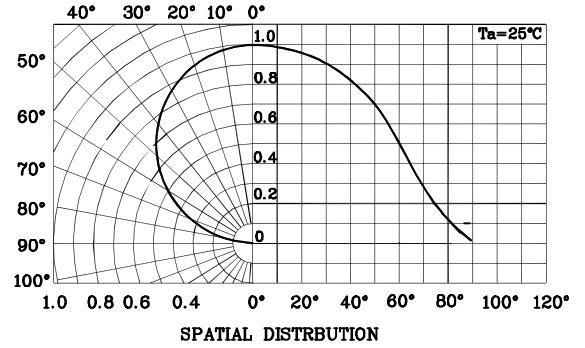
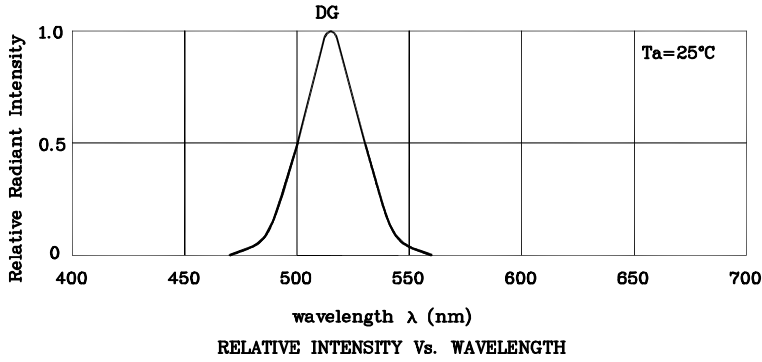
Notes:

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

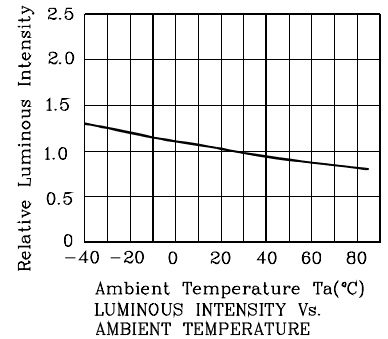
| Absolute Maximum Ratings<br>(T <sub>A</sub> =25°C)             |                  | DG<br>(InGaN) | Unit |
|--|------------------|---------------|------|
| Reverse Voltage  | V <sub>R</sub>   | 5             | V    |
| Forward Current  | I <sub>F</sub>   | 25            | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | i <sub>FS</sub>  | 150           | mA   |
| Power Dissipation  | P <sub>D</sub>   | 102.5         | mW   |
| Operating Temperature  | T <sub>A</sub>   | -40 ~ +85     | °C   |
| Storage Temperature  | T <sub>stg</sub> | -40 ~ +85     |      |
| Electrostatic Discharge Threshold<br>(HBM)                     |                  | 450           | V    |

| Operating Characteristics<br>(T <sub>A</sub> =25°C)                          |                | DG<br>(InGaN) | Unit |
|--|----------------|---------------|------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =20mA)                             | V <sub>F</sub> | 3.3           | V    |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =20mA)                             | V <sub>F</sub> | 4.1           | V    |
| Reverse Current (Max.)<br>(V <sub>R</sub> =5V)                               | I <sub>R</sub> | 50            | uA   |
| Wavelength of Peak<br>Emission (Typ.)<br>(I <sub>F</sub> =20mA)              | λ <sub>P</sub> | 515           | nm   |
| Wavelength of Dominant<br>Emission (Typ.)<br>(I <sub>F</sub> =20mA)          | λ <sub>D</sub> | 525           | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =20mA) | Δλ             | 30            | nm   |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | C              | 45            | pF   |

| Part Number | Emitting Color | Emitting Material | Lens-color  | Luminous Intensity<br>(I <sub>F</sub> =20mA)<br>mcd |      | Wavelength<br>nm<br>λ <sub>P</sub> | Viewing Angle<br>2θ 1/2 |
|-------------|----------------|-------------------|-------------|---|------|------------------------------------|-------------------------|
|             |                |                   |             | min.  | typ. |                                    |                         |
| ZDG53W-6    | Green          | InGaN             | Water Clear | 280   | 497  | 515                                | 120°                    |



❖ DG



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

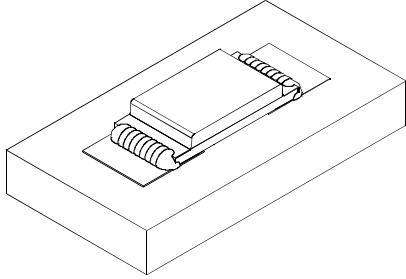
**Reflow Soldering Profile for SMD Products (Pb-Free Components)**



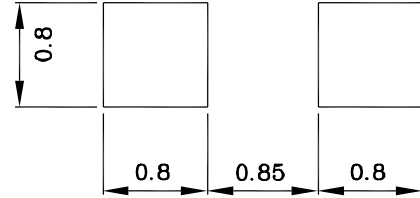
- Notes:
1. Maximum soldering temperature should not exceed 280°C
  2. Recommended reflow temperature: 145°C-260°C
  3. Do not put stress to the epoxy resin during high temperatures conditions



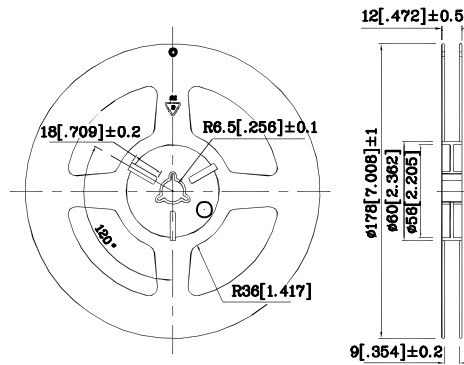
❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.



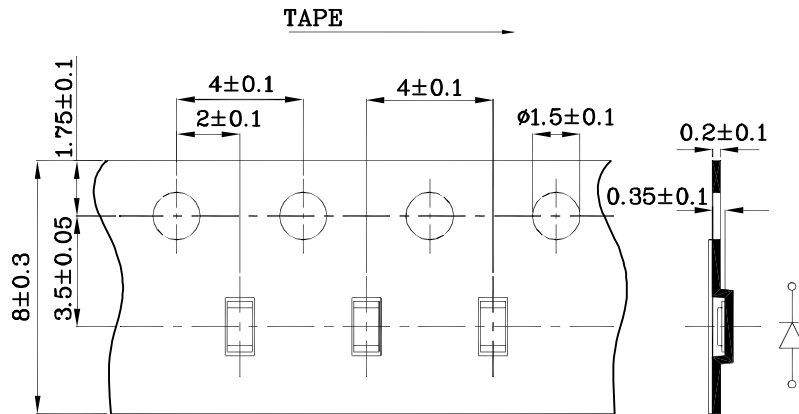
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



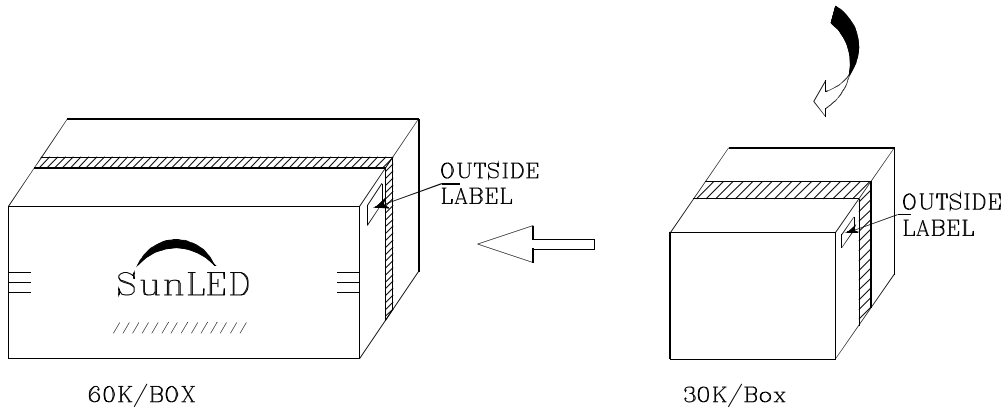
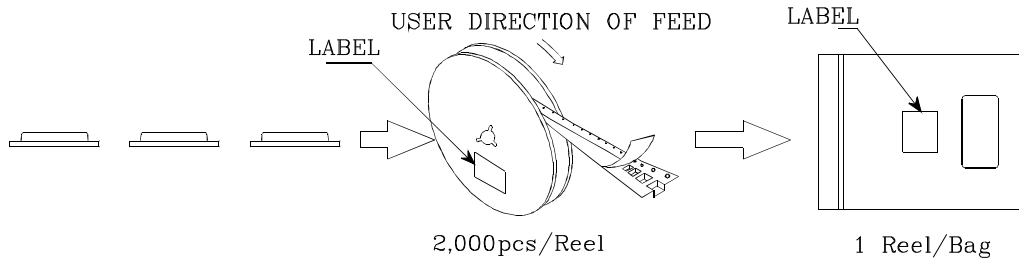
Remarks:



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**



|  |           |   |      |     |             |        |
|--|-----------|---|------|-----|-------------|--------|
|                                   |           | <table border="1"> <tr><td>Q.C.</td></tr> <tr><td>Q C</td></tr> <tr><td>XX XX. XXXX</td></tr> <tr><td>PASSED</td></tr> </table> | Q.C. | Q C | XX XX. XXXX | PASSED |
| Q.C.   |           |   |      |     |             |        |
| Q C  |           |   |      |     |             |        |
| XX XX. XXXX  |           |   |      |     |             |        |
| PASSED   |           |   |      |     |             |        |
| P/N0 : Zxxx53x-6   |           |   |      |     |             |        |
| QTY : 2,000 pcs  | CODE: XXX |   |      |     |             |        |
| S/N : XX   |           |   |      |     |             |        |
| LOT NO:  |           |   |      |     |             |        |
| <br>XXXXXXXXXXXXXXXXXXXXXXXXXXXX |           |   |      |     |             |        |
| RoHS Compliant   |           |   |      |     |             |        |