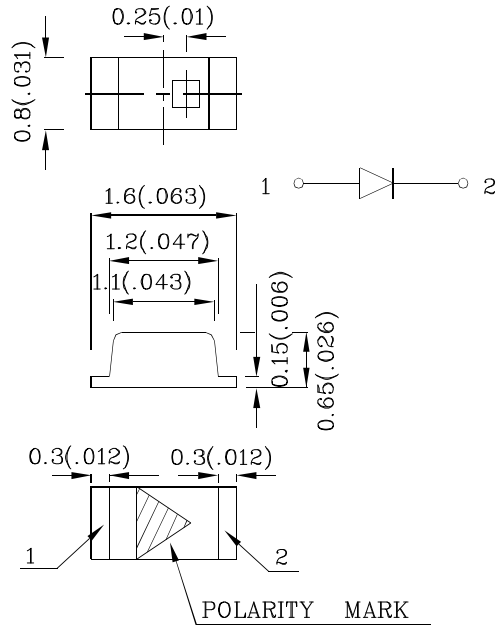


PRELIMINARY SPEC

**Features**

- 1.6mmx0.8mm SMT LED, 0.65mm 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.



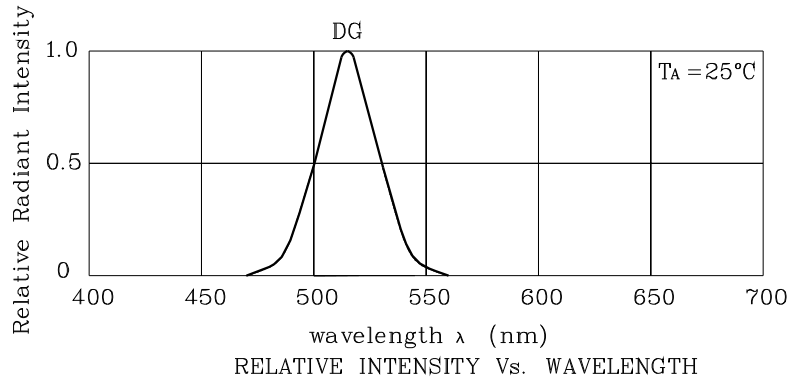
Notes:

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.

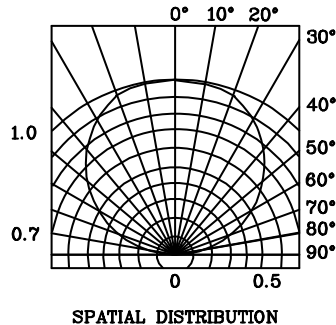
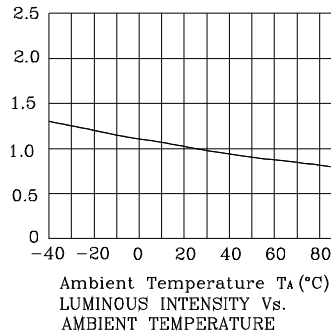
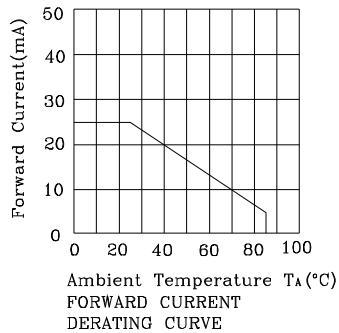
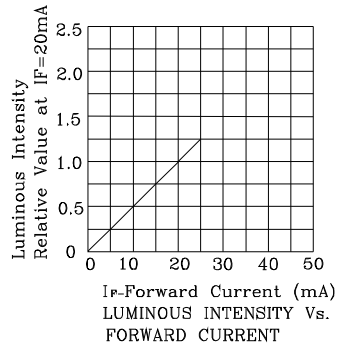
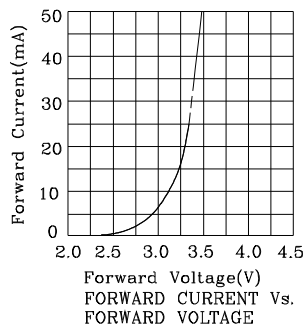
| Absolute Maximum Ratings<br>(TA=25°C)                          |      | DG<br>(InGaN) | Unit |
|--|------|---------------|------|
| Reverse Voltage  | VR   | 5             | V    |
| Forward Current  | IF   | 25            | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS  | 150           | mA   |
| Power Dissipation  | PT   | 102.5         | mW   |
| Operating Temperature  | TA   | -40 ~ +85     | °C   |
| Storage Temperature  | Tstg | -40 ~ +85     |      |

| Operating Characteristics<br>(TA=25°C)                          |                 | DG<br>(InGaN) | Unit |
|---|-----------------|---------------|------|
| Forward Voltage (Typ.)<br>(IF=20mA)                             | VF              | 3.3           | V    |
| Forward Voltage (Max.)<br>(IF=20mA)                             | VF              | 4.1           | V    |
| Reverse Current (Max.)<br>(VR=5V)                               | IR              | 10            | uA   |
| Wavelength of Peak<br>Emission (Typ.)<br>(IF=20mA)              | $\lambda P$     | 515           | nm   |
| Wavelength of Dominant<br>Emission (Typ.)<br>(IF=20mA)          | $\lambda D$     | 525           | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(IF=20mA) | $\Delta\lambda$ | 30            | nm   |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)                           | C               | 45            | pF   |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous<br>Intensity<br>(IF=20mA)<br>mcd |      | Wavelength        | Viewing<br>Angle |
|----------------|-------------------|----------------------|-------------|---|------|-------------------|------------------|
|                |                   |                      |             | min.                                      | typ. | nm<br>$\lambda P$ | 2 $\theta$ 1/2   |
| XZDG53W-2      | Green             | InGaN                | Water Clear | 110                                       | 297  | 515               | 120°             |

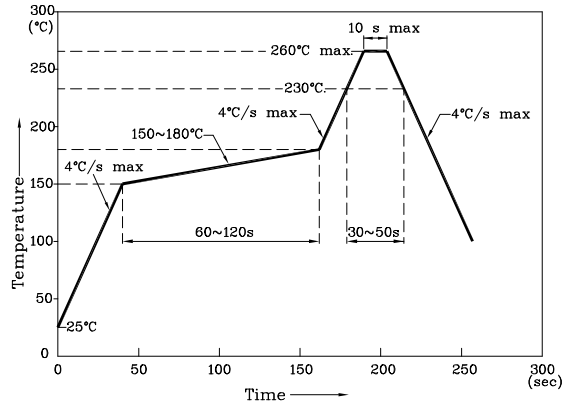


❖ DG



**Reflow soldering is recommended and the soldering profile is shown below.  
Other soldering methods are not recommended as they might cause damage to the product.**

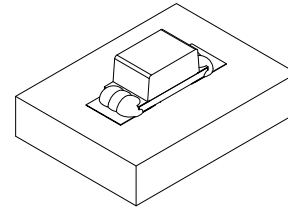
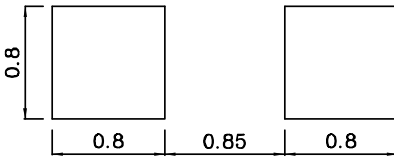
Reflow Soldering Profile For Lead-free SMT Process.



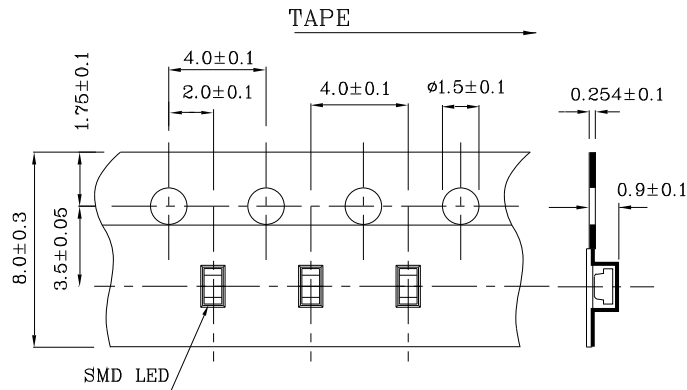
- NOTES:
1. Maximum soldering temperature should not exceed 260°C.
  2. Recommended reflow temperature: 145°C–260°C.
  3. Do not put stress to the epoxy resin during high temperatures conditions.

❖ **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:

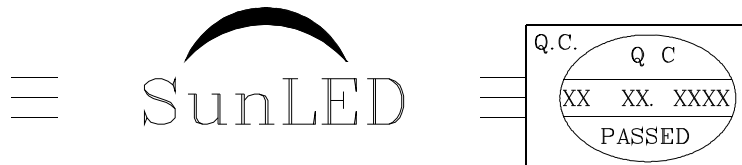
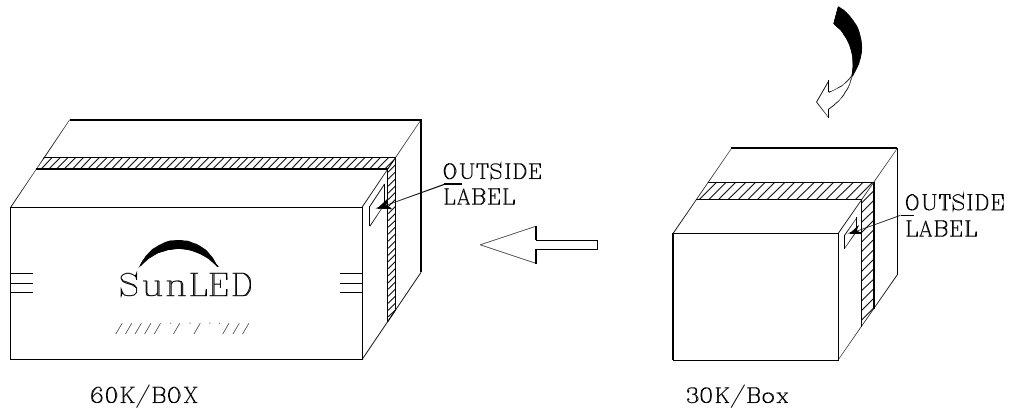
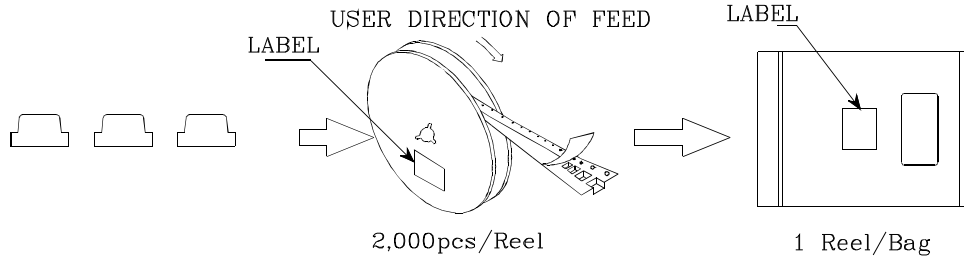
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


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**

**XZDG53W-2**



|  |           |
|--|-----------|
| P/NO : XZxx53x-2   |           |
| QTY : 2,000 pcs  | CODE: XXX |
| S/N : XX   |           |
| LOT NO:  |           |
| <br>XXXXXXXXXXXXXXXXXXXXXXXXXXXX |           |
| RoHS Compliant   |           |