

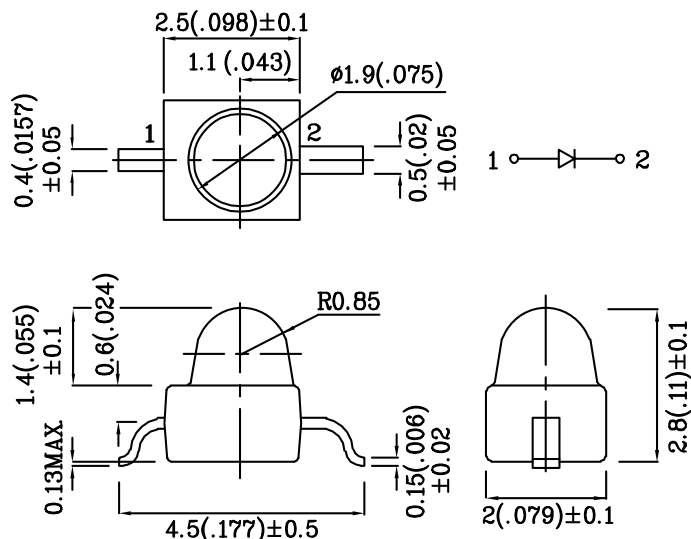
## Features

- SUBMINIATURE PACKAGE.
- GULL WING LEAD.
- LONG LIFE - SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- PACKAGE : 1000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



Notes:

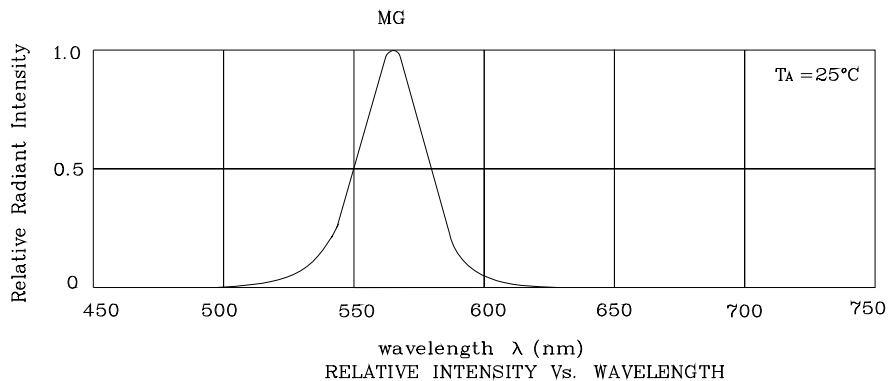
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
3. Specifications are subject to change without notice.



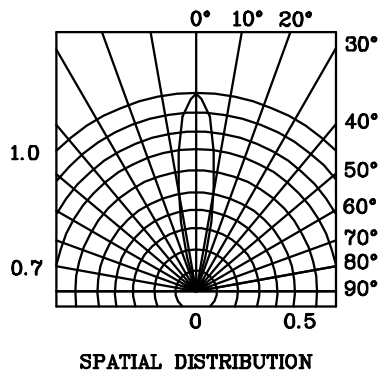
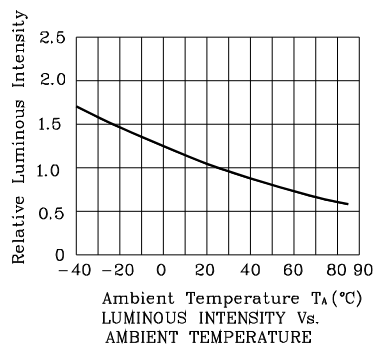
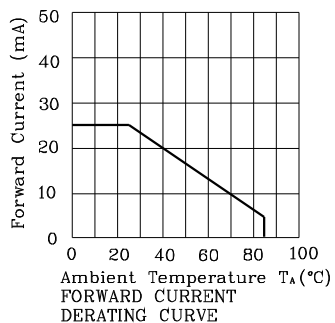
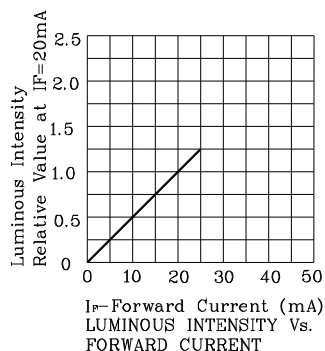
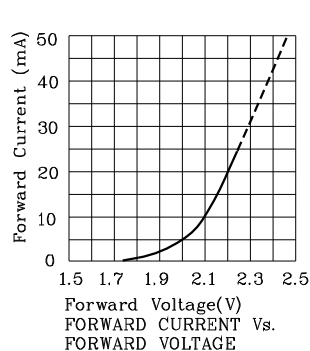
| Absolute Maximum Ratings<br>(TA=25°C)                          |      | MG<br>(GaP) | Unit |
|----------------------------------------------------------------|------|-------------|------|
| Reverse Voltage                                                | VR   | 5           | V    |
| Forward Current                                                | IF   | 25          | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS  | 140         | mA   |
| Power Dissipation                                              | PT   | 62.5        | mW   |
| Operating Temperature                                          | TA   | -40 ~ +85   | °C   |
| Storage Temperature                                            | Tstg | -40 ~ +85   |      |

| Operating Characteristics<br>(TA=25°C)                          |                 | MG<br>(GaP) | Unit |
|-----------------------------------------------------------------|-----------------|-------------|------|
| Forward Voltage (Typ.)<br>(IF=20mA)                             | VF              | 2.2         | V    |
| Forward Voltage (Max.)<br>(IF=20mA)                             | VF              | 2.5         | V    |
| Reverse Current (Max.)<br>(VR=5V)                               | IR              | 10          | uA   |
| Wavelength Of Peak<br>Emission (Typ.)<br>(IF=20mA)              | $\lambda$ P     | 565         | nm   |
| Wavelength Of Domi-<br>nant Emission (Typ.)<br>(IF=20mA)        | $\lambda$ D     | 568         | 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               | 15          | pF   |

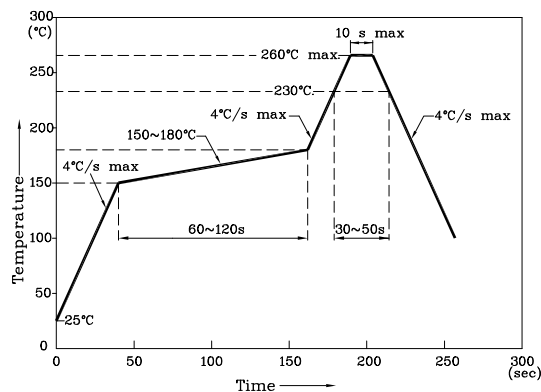
| Part Number                  | Emitting Color | Emitting Material     | Lens-color  | Luminous Intensity<br>(IF=20mA)<br>mcd | Wavelength<br>nm<br>$\lambda$ P | Viewing Angle<br>2 $\theta$ 1/2 |
|------------------------------|----------------|-----------------------|-------------|----------------------------------------|---------------------------------|---------------------------------|
|                              |                |                       |             | min.                                   | typ.                            |                                 |
| ZMG46W-3                     | Green          | GaP                   | Water Clear | 36                                     | 79                              | 565                             |
|                              |                |                       |             |                                        |                                 |                                 |
| Published Date : FEB 26,2008 |                | Drawing No : SDSA0248 |             | V5                                     | Checked : B.L.LIU               |                                 |
| P.1/4                        |                |                       |             |                                        |                                 |                                 |



❖ MG



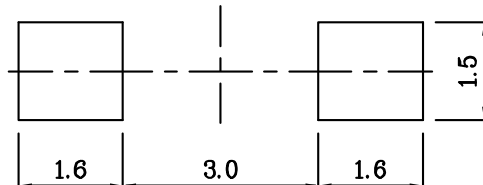
Reflow Soldering Profile For Lead-free SMT Process.



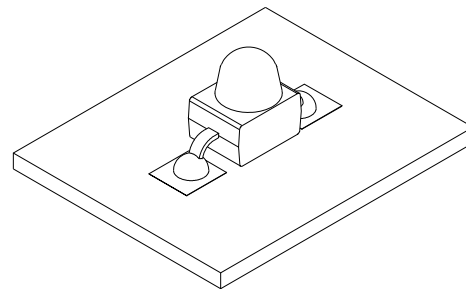
NOTES:

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.

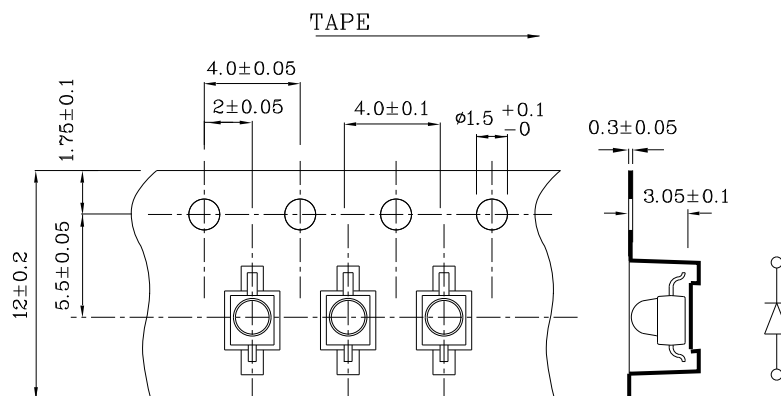
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )



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



❖ Tape Specification (Units : mm)



Remarks:

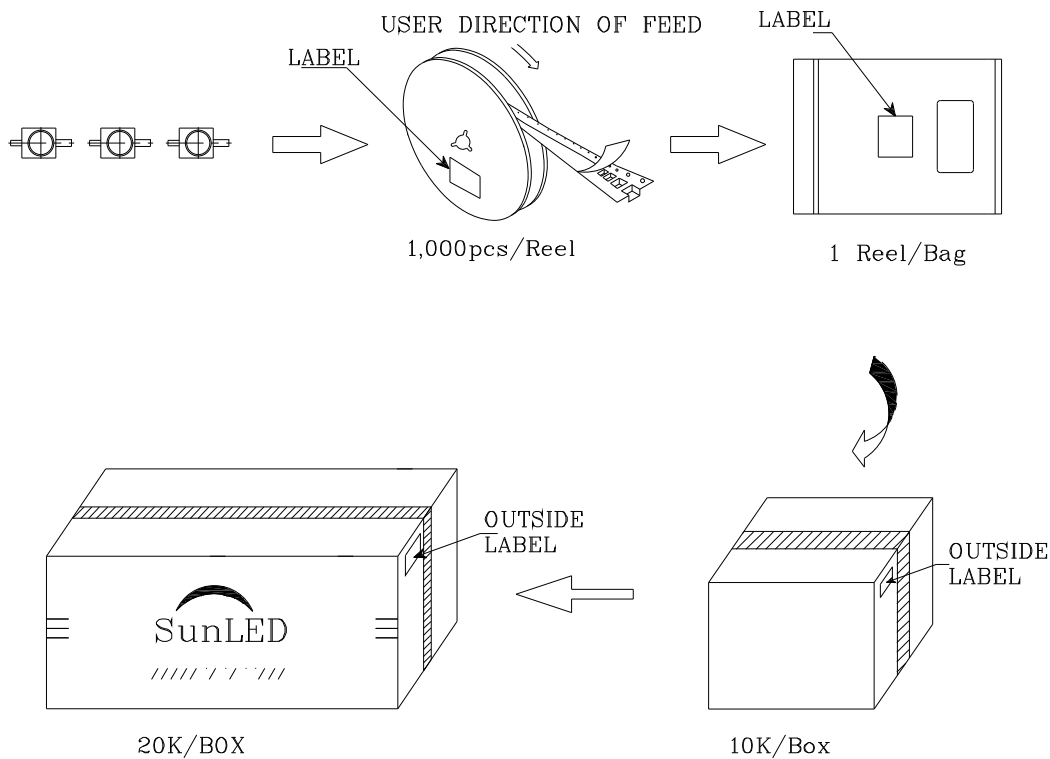
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength:  $\pm 1\text{nm}$
2. Luminous Intensity / Luminous Flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.

**PACKING & LABEL SPECIFICATIONS**

**ZMG46W-3**



**SunLED**

Q.C. Q C

XX XX XXXX

PASSED

|                                |           |
|--------------------------------|-----------|
| P/NO : Zxxx46x-3               |           |
| QTY : 1,000 pcs                | CODE: XXX |
| S/N : XX                       |           |
| LOT NO :                       |           |
| <p>XXXXXXXXXXXXXXXXXXXXXXX</p> |           |
| RoHS Compliant                 |           |