

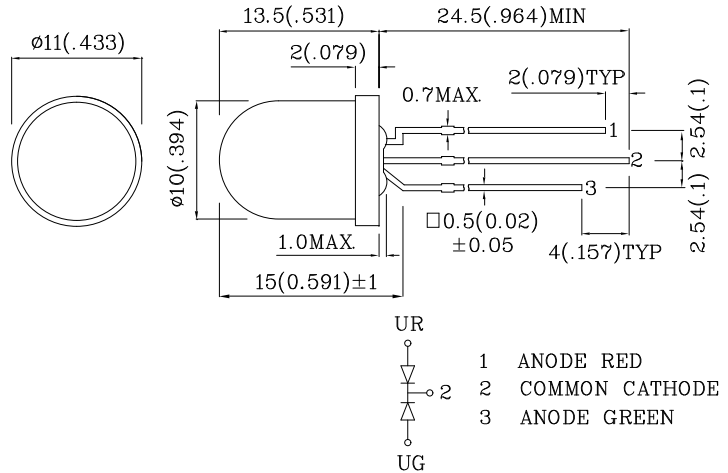
## Features

- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- 3 LEADS WITH ONE COMMON CATHODE LEAD.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.
- 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.

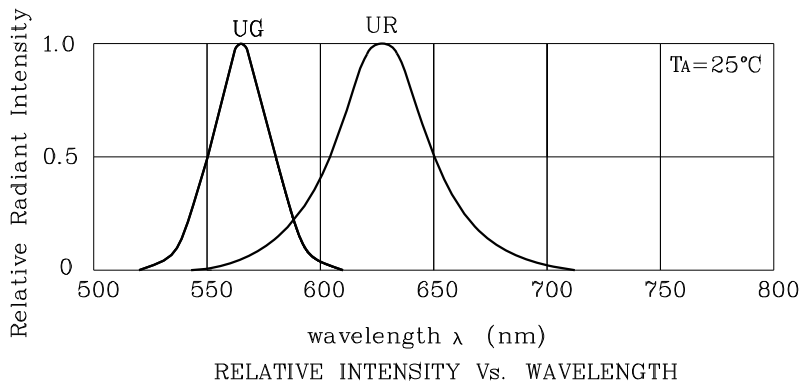


| Absolute Maximum Ratings<br>(TA=25°C)                          |                     | UR<br>(GaAsP/<br>GaP) | UG<br>(GaP) | Unit |
|----------------------------------------------------------------|---------------------|-----------------------|-------------|------|
| Reverse Voltage                                                | VR                  | 5                     | 5           | V    |
| Forward Current                                                | IF                  | 30                    | 25          | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS                 | 160                   | 140         | mA   |
| Power Dissipation                                              | PT                  | 75                    | 62.5        | mW   |
| Operating Temperature                                          | TA                  | -40 ~ +85             |             | °C   |
| Storage Temperature                                            | Tstg                | -40 ~ +85             |             |      |
| Lead Solder Temperature<br>[2mm Below Package Base]            | 260°C For 3 Seconds |                       |             |      |
| Lead Solder Temperature<br>[5mm Below Package Base]            | 260°C For 5 Seconds |                       |             |      |

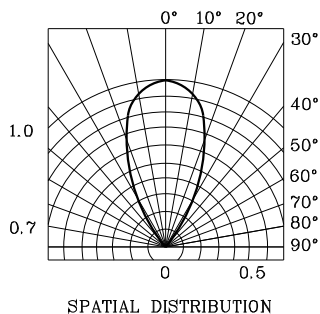
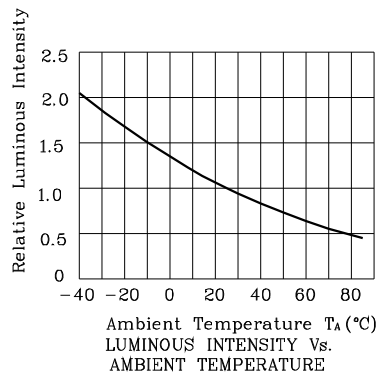
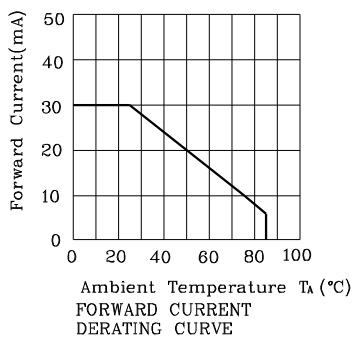
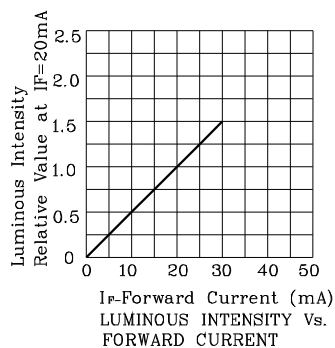
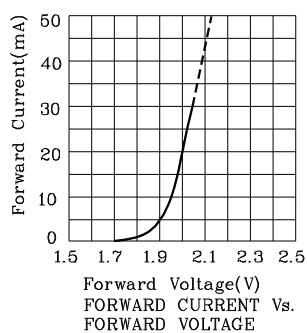
| Operating Characteristics<br>(TA=25°C)                          |     | UR<br>(GaAsP/<br>GaP) | UG<br>(GaP) | Unit |
|-----------------------------------------------------------------|-----|-----------------------|-------------|------|
| Forward Voltage (Typ.)<br>(IF=20mA)                             | VF  | 2.0                   | 2.2         | V    |
| Forward Voltage (Max.)<br>(IF=20mA)                             | VF  | 2.5                   | 2.5         | V    |
| Reverse Current (Max.)<br>(VR=5V)                               | IR  | 10                    | 10          | uA   |
| Wavelength Of Peak<br>Emission (Typ.)<br>(IF=20mA)              | λ P | 627                   | 565         | nm   |
| Wavelength Of Dominant<br>Emission (Typ.)<br>(IF=20mA)          | λ D | 625                   | 568         | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(IF=20mA) | Δλ  | 45                    | 30          | nm   |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)                           | C   | 15                    | 15          | pF   |

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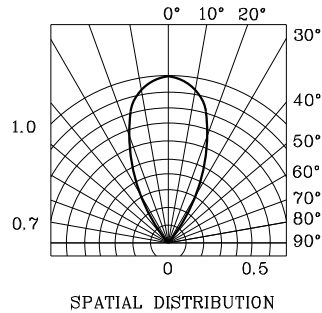
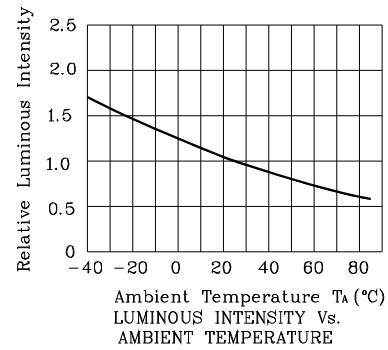
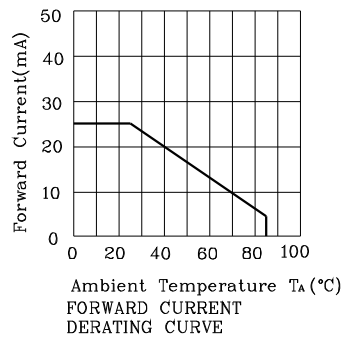
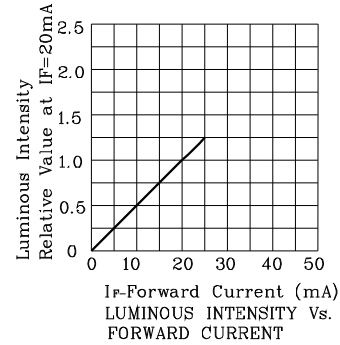
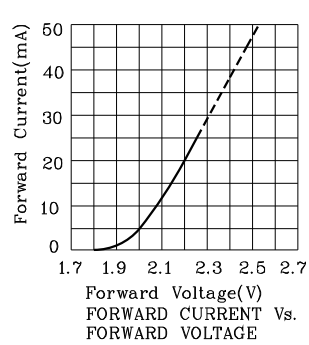
| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color     | Luminous<br>Intensity<br>(IF=20mA)<br>mcd |      | Wavelength<br>nm<br>λ P | Viewing<br>Angle<br>2 θ 1/2 |
|----------------|-------------------|----------------------|----------------|-------------------------------------------|------|-------------------------|-----------------------------|
|                |                   |                      |                | min.                                      | typ. |                         |                             |
| LUGR02M        | Red               | GaAsP/GaP            | White Diffused | 36                                        | 79   | 627                     | 50°                         |
|                | Green             | GaP                  |                | 18                                        | 49   | 565                     |                             |



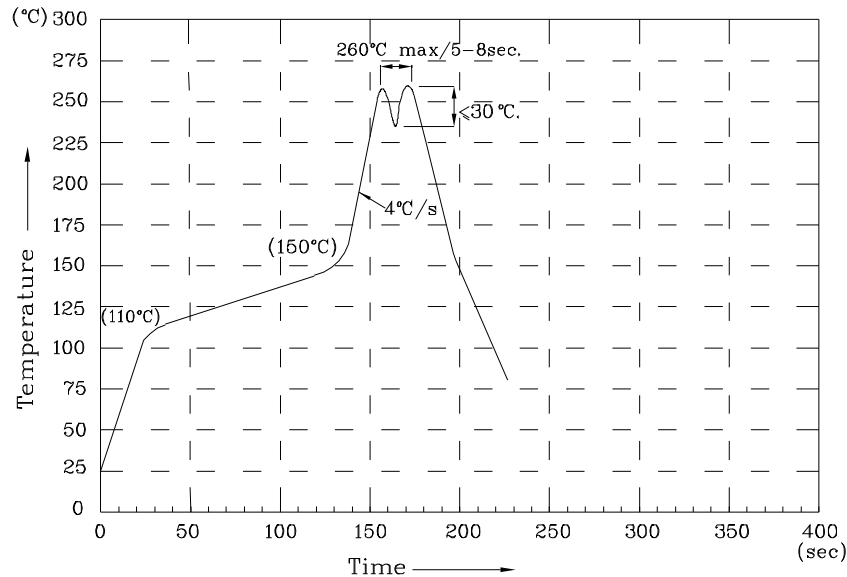
❖ UR



❖ UG



Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

- 1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85 degree°C.
- 3.The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.No more than once.

Remarks:

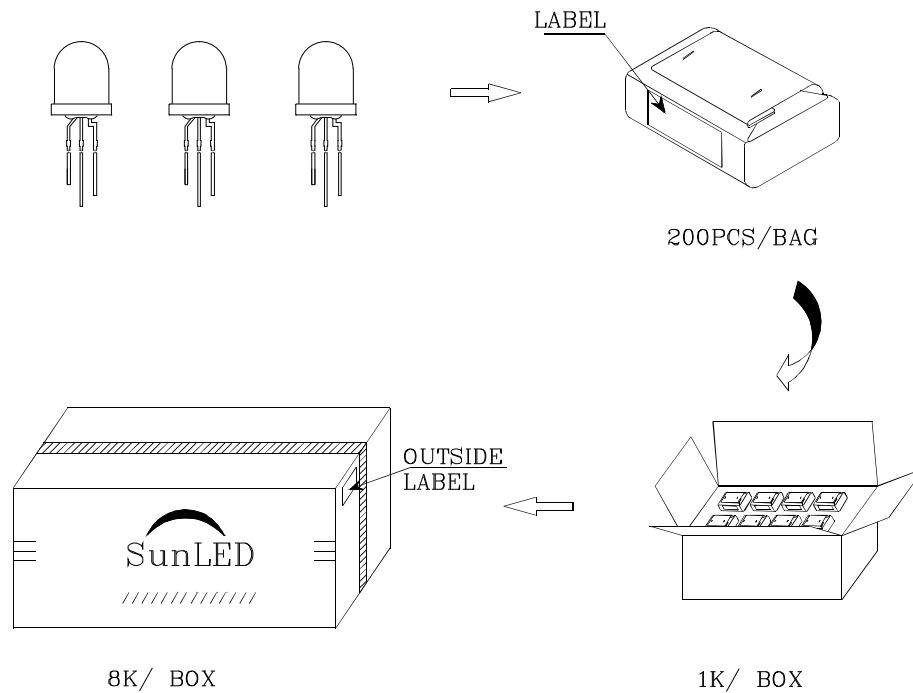
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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**

**LUGR02M**



≡ **SunLED** ≡

|                                                                                                                                                                                                                         |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <div style="display: flex; justify-content: space-between;"> <span>Q.C.</span> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;"> Q C<br/>XX XX XXXX<br/>PASSED </div> </div> |           |
| P/NO : Lxxx02x                                                                                                                                                                                                          |           |
| QTY : 200 pcs                                                                                                                                                                                                           | CODE: XXX |
| S/N : XX                                                                                                                                                                                                                |           |
| LOT NO:<br><br>xxxxxxxxxxxxxxxxxxxxxx<br>RoHS Compliant                                                                             |           |