

Features

- Radial / Through hole package
- Reliable & robust
- Low power consumption
- RoHS Compliant



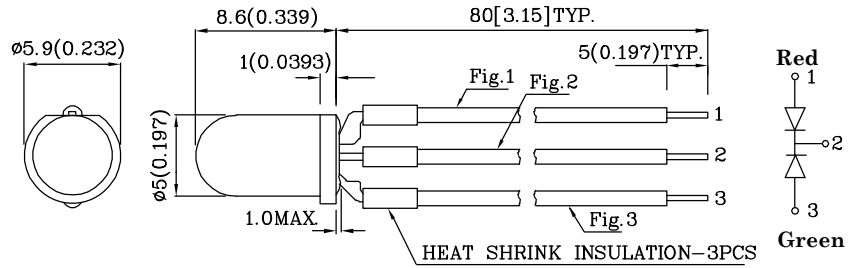
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics

Fig.1 ANODE LEAD, TS , 22 AWG ,UL#1332 , ORANGE INSULATION,STRIP 5 mm .

Fig.2 CATHODE LEAD , TS , 22 AWG ,UL#1332 ,BROWN INSULATION ,STRIP 5 mm .

Fig.3 ANODE LEAD , TS , 22 AWG ,UL#1332 ,GREEN INSULATION ,STRIP 5 mm .



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.

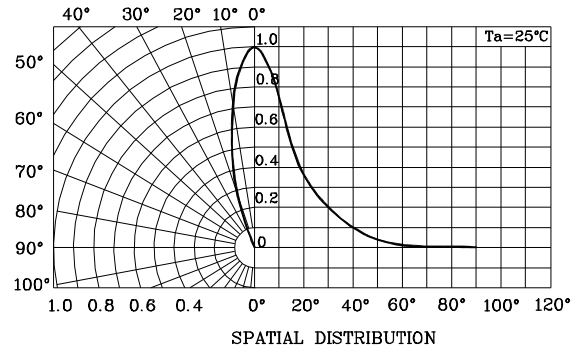
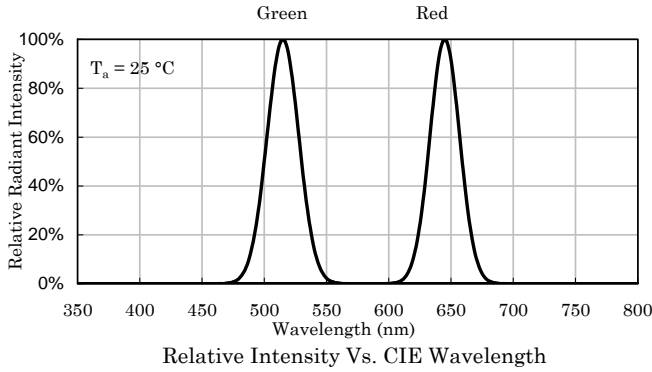
| Absolute Maximum Ratings ($T_A=25^\circ\text{C}$) | | Red (AlGaInP) | Green (InGaN) | Unit |
|--|-----------|---------------------|------------------|------|
| Reverse Voltage | V_R | 5 | 5 | V |
| Forward Current | I_F | 30 | 25 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i_{FS} | 185 | 150 | mA |
| Power Dissipation | P_D | 75 | 102.5 | mW |
| Electrostatic Discharge Threshold (HBM) | | 3000 | 450 | V |
| Operating Temperature | T_A | -40 ~ +85 | | °C |
| Storage Temperature | T_{stg} | -40 ~ +85 | | |
| Lead Solder Temperature [2mm Below Package Base] | | 260°C For 3 Seconds | | |
| Lead Solder Temperature [5mm Below Package Base] | | 260°C For 5 Seconds | | |

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

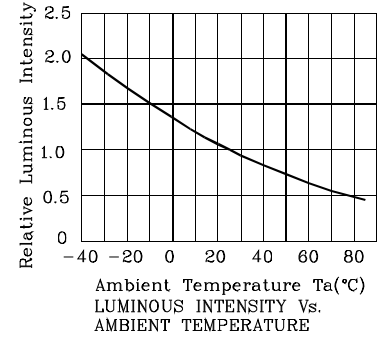
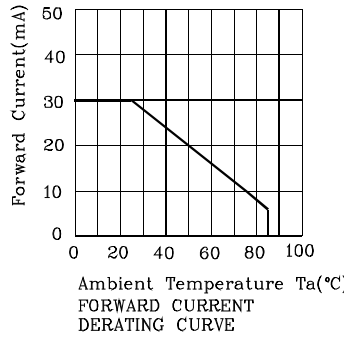
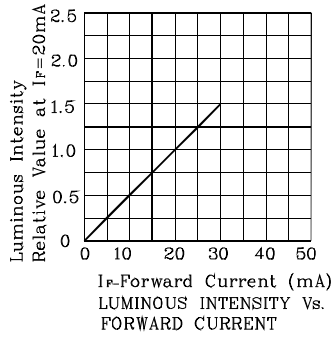
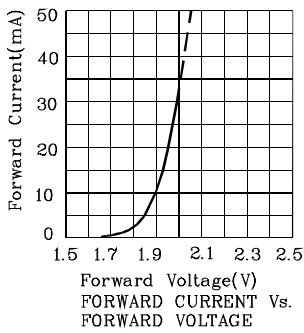
| Operating Characteristics ($T_A=25^\circ\text{C}$) | | Red (AlGaInP) | Green (InGaN) | Unit |
|---|-----------------|------------------|------------------|---------------|
| Forward Voltage (Typ.) ($I_F=20\text{mA}$) | V_F | 1.95 | 3.3 | V |
| Forward Voltage (Max.) ($I_F=20\text{mA}$) | V_F | 2.5 | 4.1 | V |
| Reverse Current (Max.) ($V_R=5\text{V}$) | I_R | 10 | 50 | μA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$) | λ_P | 645* | 515* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$) | λ_D | 630* | 525* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$) | $\Delta\lambda$ | 28 | 30 | nm |
| Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 35 | 45 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* ($I_F=20\text{mA}$) mcd | | Wavelength nm λ_P | Viewing Angle 20 1/2 |
|-----------------|----------------|-------------------|----------------|--|-------|---------------------------------|-------------------------|
| | | | | min. | typ. | | |
| XLMDKDG59MW3.15 | Red | AlGaInP | White Diffused | 600 | 1195 | 645* | 30° |
| | Green | InGaN | | 700 | 1495 | | |
| | | | | 80* | 198* | | |
| | | | | 700* | 1495* | 515* | |

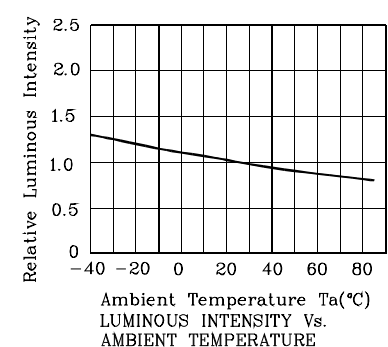
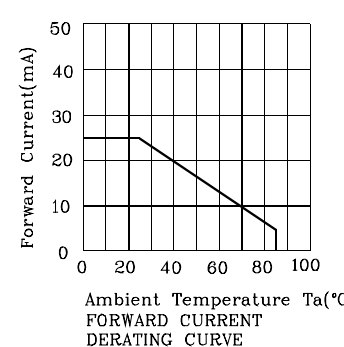
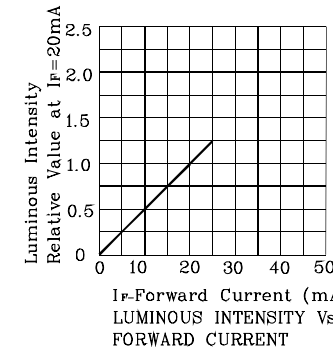
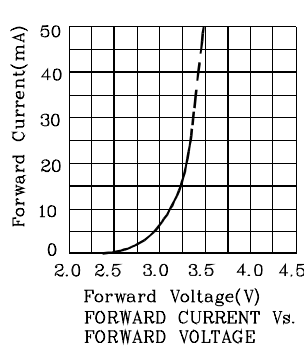
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



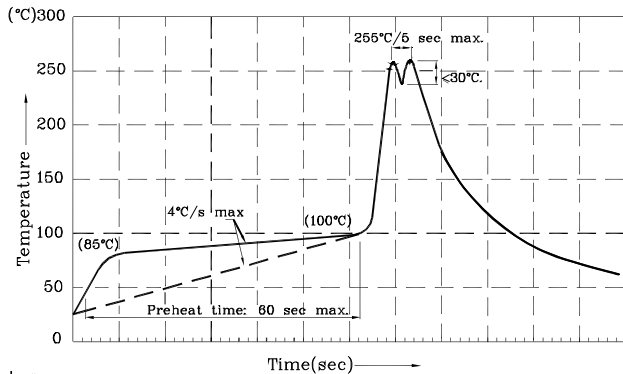
❖ Red



❖ Green



Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



- Notes:
- 1.Recommend pre-heat temperature of 105 $^\circ\text{C}$ or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260 $^\circ\text{C}$
 - 2.Peak wave soldering temperature between 245 $^\circ\text{C}$ ~ 255 $^\circ\text{C}$ for 3 sec (5 sec max).
 - 3.Do not apply stress to the epoxy resin while the temperature is above 85 $^\circ\text{C}$.
 - 4.Fixtures should not incur stress on the component when mounting and during soldering process.
 - 5.SAC 305 solder alloy is recommended.
 - 6.No more than one wave soldering pass.

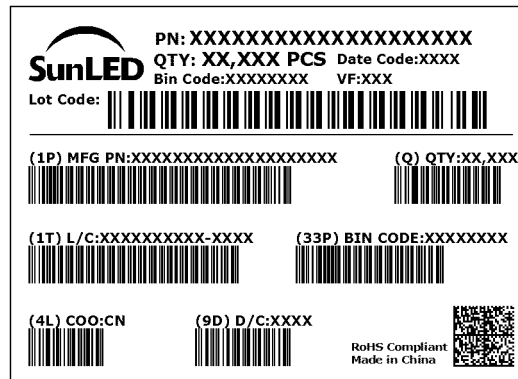
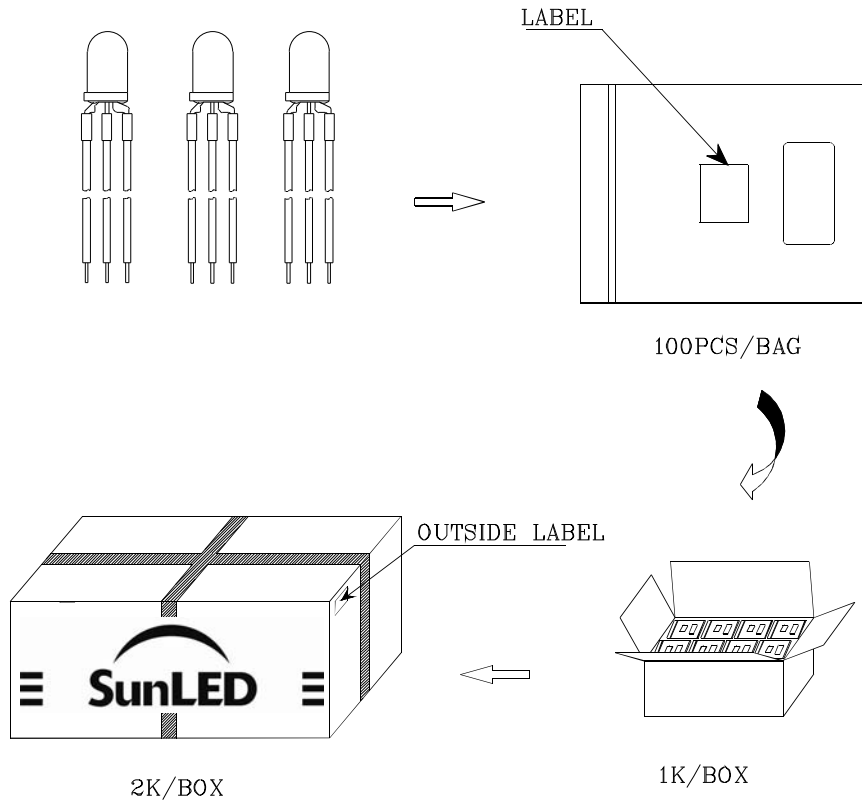
Remarks:

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



TERMS OF USE

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