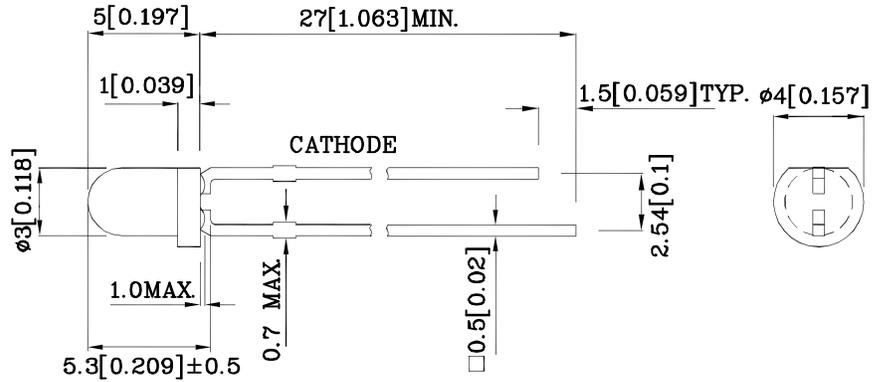


**Features**

- Radial / Through hole package
- Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant



**Package Schematics**



Notes:

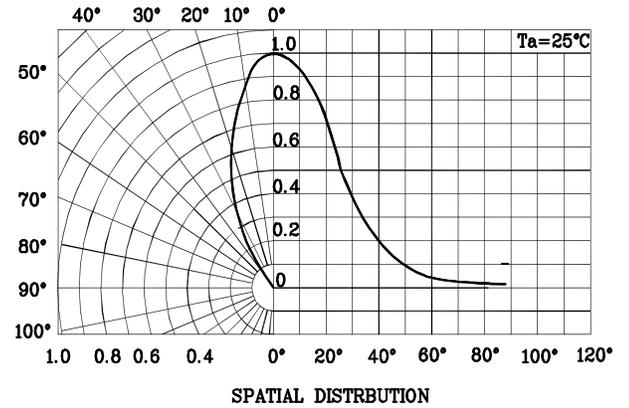
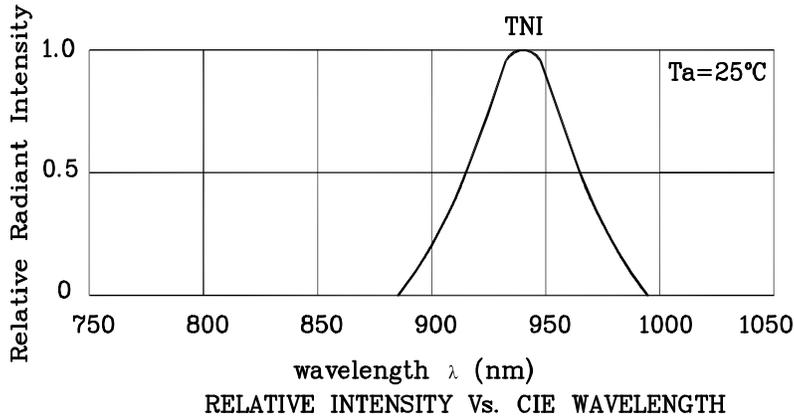
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$ (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

| Absolute Maximum Ratings<br>( $T_A=25^\circ\text{C}$ )         |                     | TNI<br>(GaAs) | Unit |
|--|---------------------|---------------|------|
| Reverse Voltage  | $V_R$               | 5             | V    |
| Forward Current  | $I_F$               | 50            | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS                 | 1200          | mA   |
| Power Dissipation  | $P_D$               | 80            | mW   |
| Operating Temperature  | $T_A$               | -40 ~ +85     | °C   |
| Storage Temperature  | $T_{stg}$           | -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 |               |      |

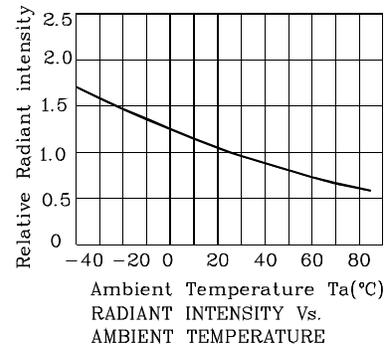
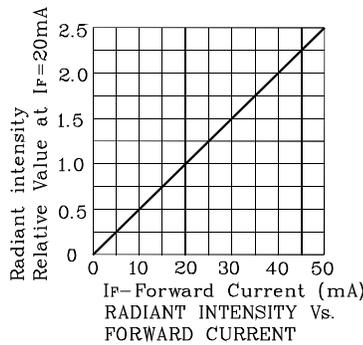
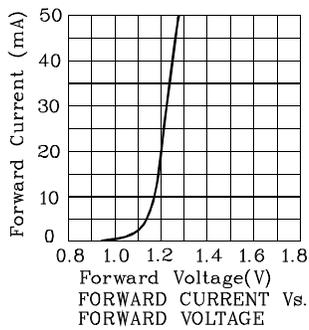
| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                     |                 | TNI<br>(GaAs) | Unit          |
|---|-----------------|---------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=20\text{mA}$ )                             | $V_F$           | 1.2           | V             |
| Forward Voltage (Max.)<br>( $I_F=20\text{mA}$ )                             | $V_F$           | 1.6           | V             |
| Reverse Current (Max.)<br>( $V_R=5\text{V}$ )                               | $I_R$           | 10            | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission CIE127-2007*(Typ.)<br>( $I_F=20\text{mA}$ )  | $\lambda_P$     | 940*          | nm            |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>( $I_F=20\text{mA}$ ) | $\Delta\lambda$ | 50            | nm            |
| Capacitance (Typ.)<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                 | C               | 90            | pF            |

| Part<br>Number | Emitting<br>Material | Lens-color       | Radiant Intensity<br>CIE127-2007*<br>( $P_0=\text{mW/sr}$ )<br>@20mA |          | Radiant Intensity<br>CIE127-2007*<br>( $P_0=\text{mW/sr}$ )<br>@50mA |           | Wavelength<br>CIE127-2007*<br>nm<br>$\lambda_P$ | Viewing<br>Angle<br>2 $\theta$ 1/2 |
|----------------|----------------------|------------------|--|----------|--|-----------|---|------------------------------------|
|                |                      |                  | min.   | typ.     | min.   | typ.      |   |                                    |
| XTNI30BF       | GaAs                 | Blue Transparent | 8<br>3*  | 11<br>8* | 18<br>8*   | 31<br>15* | 940*  | 50°                                |

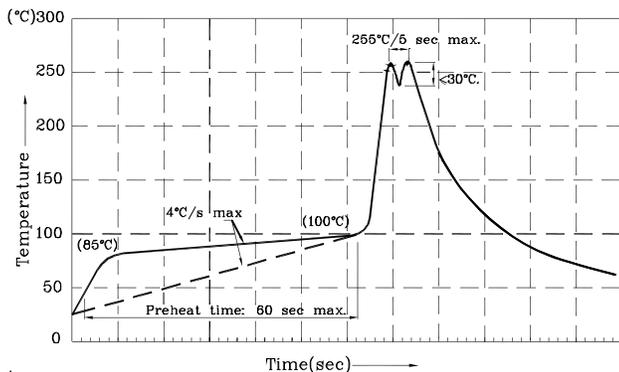
\*Radiant Intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ TNI



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



Notes:

1. Recommend pre-heat temperature of 105°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°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°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:

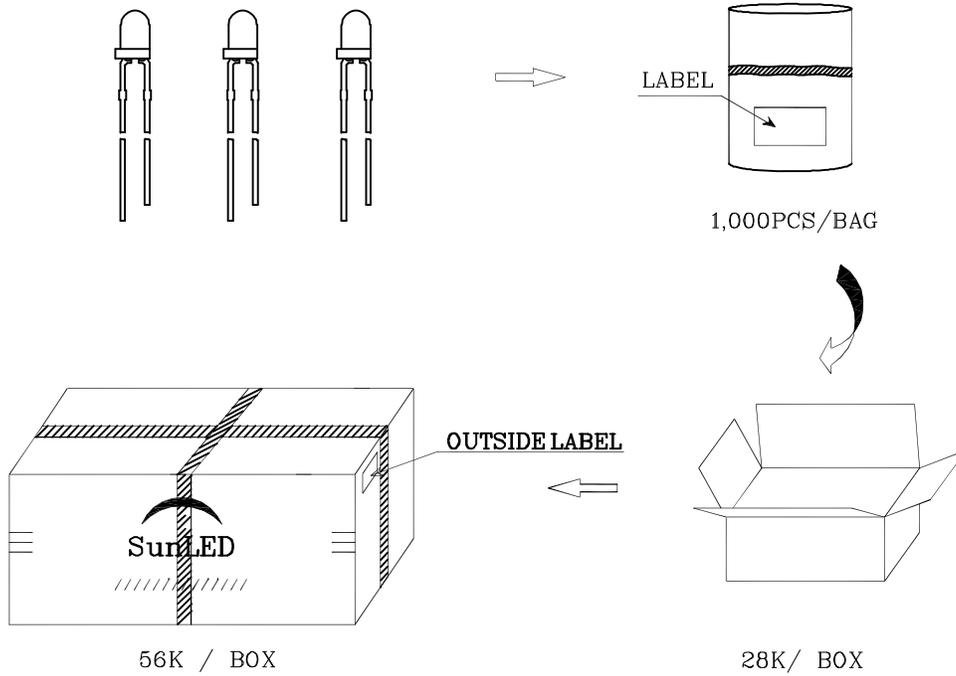
If special sorting is required (e.g. binning based on forward voltage or radiant intensity / luminous flux),

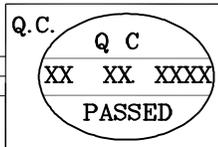
the typical accuracy of the sorting process is as follows:

1. Radiant Intensity / Luminous Flux: +/-15%
2. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters

**PACKING & LABEL SPECIFICATIONS**




|   |           |
|---|-----------|
|                           |           |
| P/NO : Xxx30x   |           |
| QTY : 1,000 pcs   | CODE: XXX |
| S/N : XX  |           |
| LOT NO:   |           |
| <br>XXXXXXXXXXXXXXXXXXXXX |           |
| RoHS Compliant  |           |