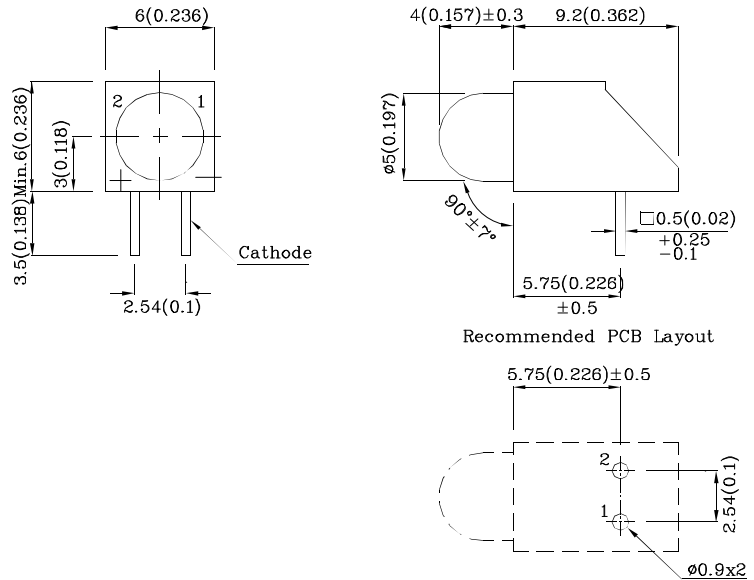


Features

- Housing material: Type 66 Nylon
- Black casing provides superior contrast
- Housing UL rating: 94V-0
- Reliable & robust
- RoHS Compliant



Package Schematics



Notes:

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

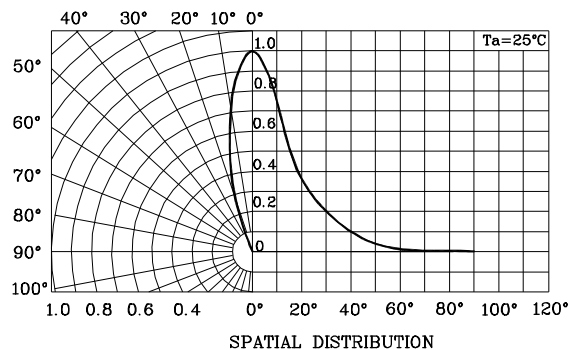
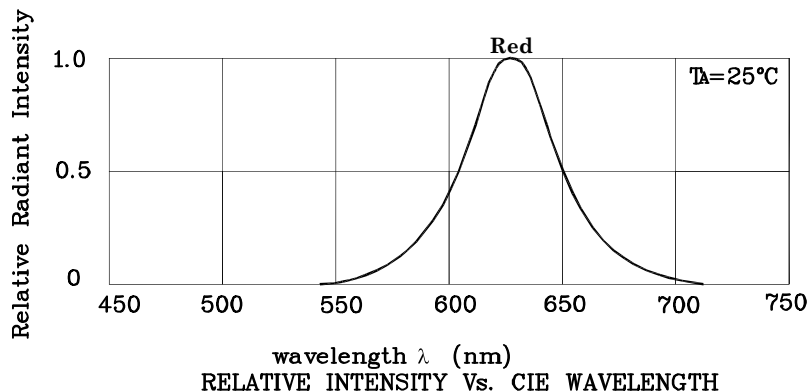
| Absolute Maximum Ratings (T _A =25°C) | | Red (GaAsP/GaP) | Unit |
|--|---------------------|--------------------|------|
| Reverse Voltage | V _R | 5 | V |
| Forward Current | I _F | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i _{FS} | 160 | mA |
| Power Dissipation | P _D | 75 | mW |
| 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)

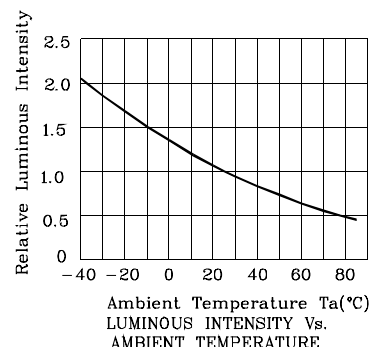
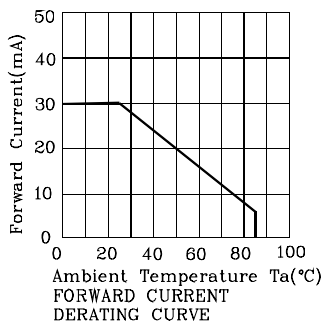
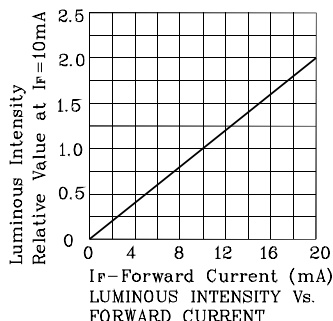
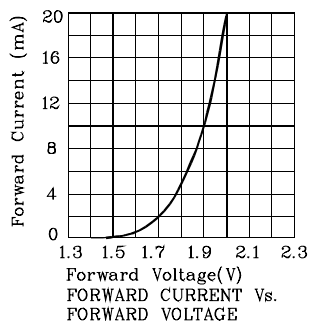
| Operating Characteristics (T _A =25°C) | | Red (GaAsP/GaP) | Unit |
|--|----------------|--------------------|------|
| Forward Voltage (Typ.) (I _F =10mA) | V _F | 1.9 | V |
| Forward Voltage (Max.) (I _F =10mA) | V _F | 2.5 | V |
| Reverse Current (Max.) (V _R =5V) | I _R | 10 | uA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =10mA) | λ _P | 627* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) (I _F =10mA) | λ _D | 617* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (I _F =10mA) | Δλ | 45 | nm |
| Capacitance (Typ.) (V _F =0V, f=1MHz) | C | 15 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* (I _F =10mA) mcd | | Wavelength CIE127-2007* nm λ _P | Viewing Angle 2θ 1/2 |
|----------------|-------------------|----------------------|--------------|---|-----------|--|----------------------------|
| | | | | min. | typ. | | |
| XVB1LUR50D | Red | GaAsP/GaP | Red Diffused | 25 12* | 49 39* | 627* | 30° |

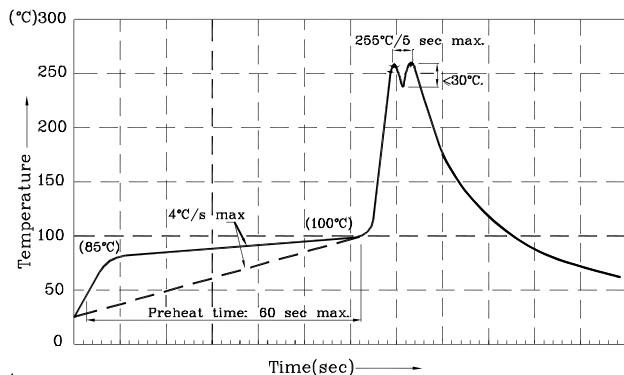
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ Red



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.

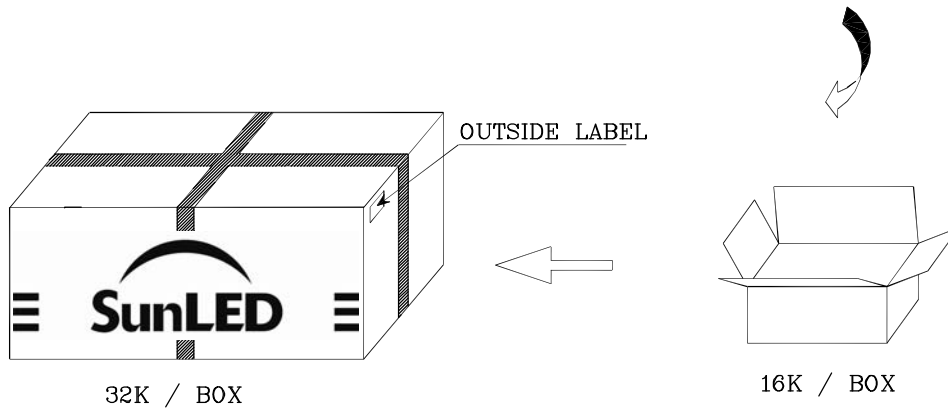
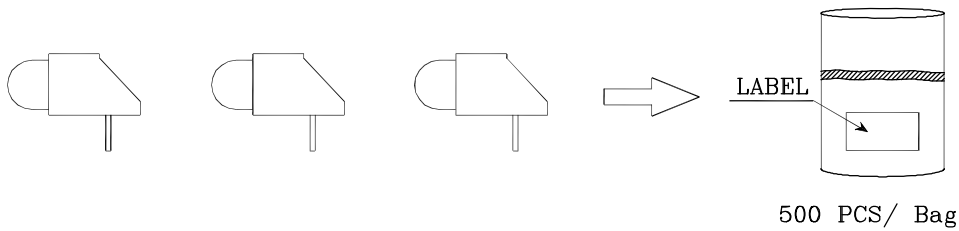
Remarks:



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: $\pm 1\text{nm}$
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



| | | | | | | | | |
|---|-------|---|---|---|----|-------|--------|--|
|  | | Q.C. <table border="1"> <tr> <td>Q</td> <td>C</td> </tr> <tr> <td>XX</td> <td>XX XX</td> </tr> <tr> <td colspan="2">PASSED</td> </tr> </table> | Q | C | XX | XX XX | PASSED | |
| Q | C | | | | | | | |
| XX | XX XX | | | | | | | |
| PASSED | | | | | | | | |
| P/NO : XVB1Lxx50x | | | | | | | | |
| QTY : 500 pcs | | CODE: XXX | | | | | | |
| S/N : XX | | | | | | | | |
| LOT NO:  XXXXXXXXXXXXXXXXXXXXXXXX | | | | | | | | |
| RoHS Compliant | | | | | | | | |

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