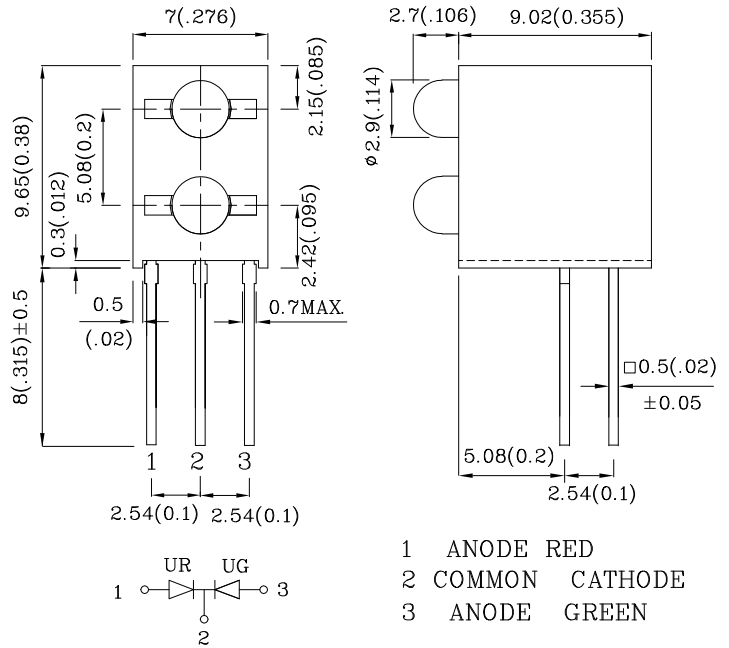


## Features

- BI-LEVEL RIGHT ANGLE HOUSING LED.
- PRE-TRIMMED LEADS FOR PC BOARD MOUNTING.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- HIGH RELIABILITY.
- UL RATING: 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.
- RoHS COMPLIANT.

## Notes:

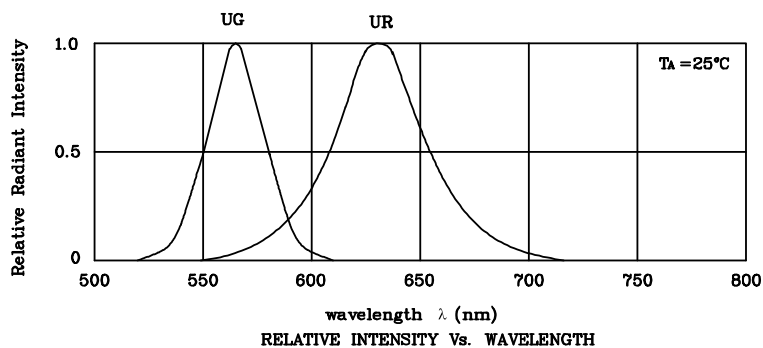
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.



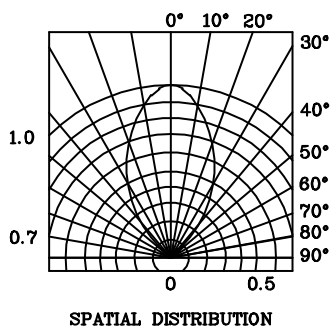
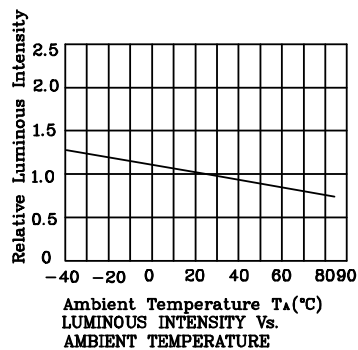
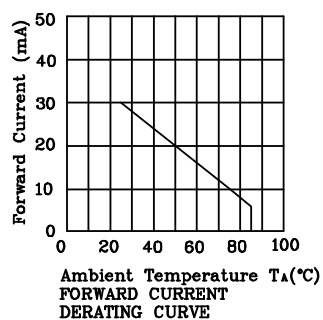
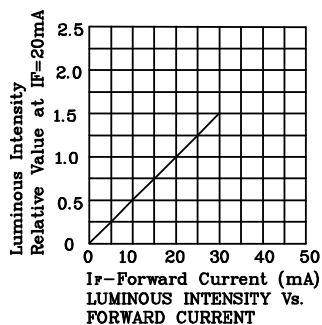
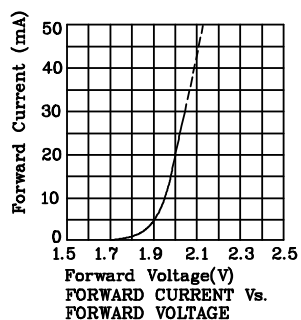
| Absolute Maximum Ratings<br>(T <sub>A</sub> =25°C)             |                     | UR<br>(GaAsP/<br>GaP) | UG<br>(GaP) | Unit |
|----------------------------------------------------------------|---------------------|-----------------------|-------------|------|
| Reverse Voltage                                                | V <sub>R</sub>      | 5                     | 5           | V    |
| Forward Current                                                | I <sub>F</sub>      | 30                    | 25          | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | i <sub>FS</sub>     | 160                   | 140         | mA   |
| Power Dissipation                                              | P <sub>T</sub>      | 105                   | 105         | mW   |
| Operating Temperature                                          | T <sub>A</sub>      | -40 ~ +85             |             | °C   |
| Storage Temperature                                            | T <sub>stg</sub>    | -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 <sub>A</sub> =25°C)                   |                | UR<br>(GaAsP/<br>GaP) | UG<br>(GaP) | Unit |
|-----------------------------------------------------------------------|----------------|-----------------------|-------------|------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =20mA)                      | V <sub>F</sub> | 2.0                   | 2.2         | V    |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =20mA)                      | V <sub>F</sub> | 2.5                   | 2.5         | V    |
| Reverse Current<br>(V <sub>R</sub> =5V)                               | I <sub>R</sub> | 10                    | 10          | uA   |
| Wavelength of Peak<br>Emission (I <sub>F</sub> =20mA)                 | λ <sub>P</sub> | 627                   | 565         | nm   |
| Wavelength of Dominant<br>Emission (I <sub>F</sub> =20mA)             | λ <sub>D</sub> | 625                   | 568         | nm   |
| Spectral Line Full Width<br>At Half-Maximum<br>(I <sub>F</sub> =20mA) | Δλ             | 45                    | 30          | nm   |
| Capacitance<br>(V <sub>F</sub> =0V, f=1MHz)                           | C              | 15                    | 15          | pF   |

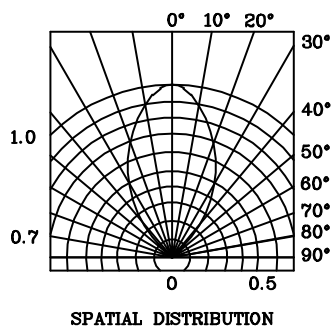
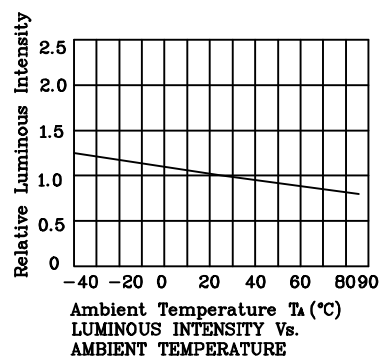
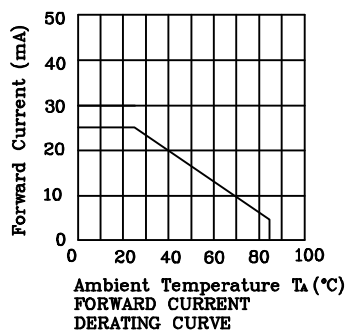
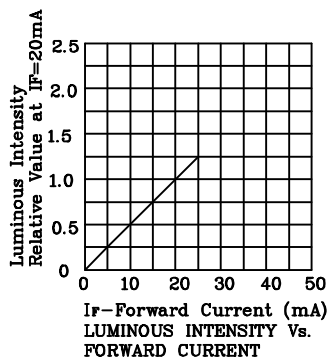
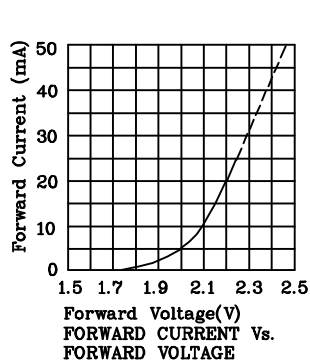
| Part<br>Number               | Emitting<br>Color | Emitting<br>Material  | Lens-color     | Luminous<br>Intensity<br>(IF=20mA)<br>mcd | Wavelength<br>nm<br>λ P | Viewing<br>Angle<br>2 θ 1/2 |       |
|------------------------------|-------------------|-----------------------|----------------|-------------------------------------------|-------------------------|-----------------------------|-------|
|                              |                   |                       |                | min.                                      | typ.                    |                             |       |
| XVO2LUGR86M8                 | Red               | GaAsP/GaP             | White Diffused | 7                                         | 29                      | 627                         | 60°   |
|                              | Green             | GaP                   |                | 7                                         | 24                      | 565                         |       |
|                              |                   |                       |                |                                           |                         |                             |       |
|                              |                   |                       |                |                                           |                         |                             |       |
| Published Date : MAY 30,2005 |                   | Drawing No : XDSA2799 |                | V3                                        | Checked : B.L.LIU       |                             | P.1/4 |



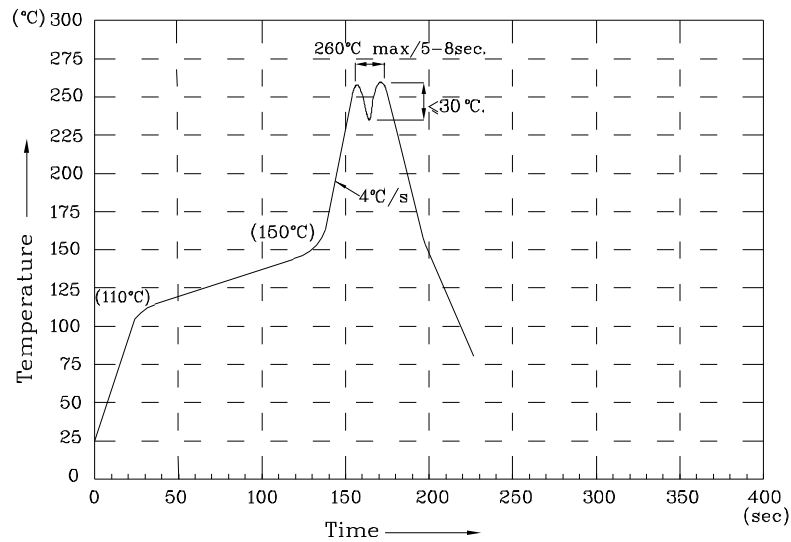
❖ UR



❖ 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, or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.