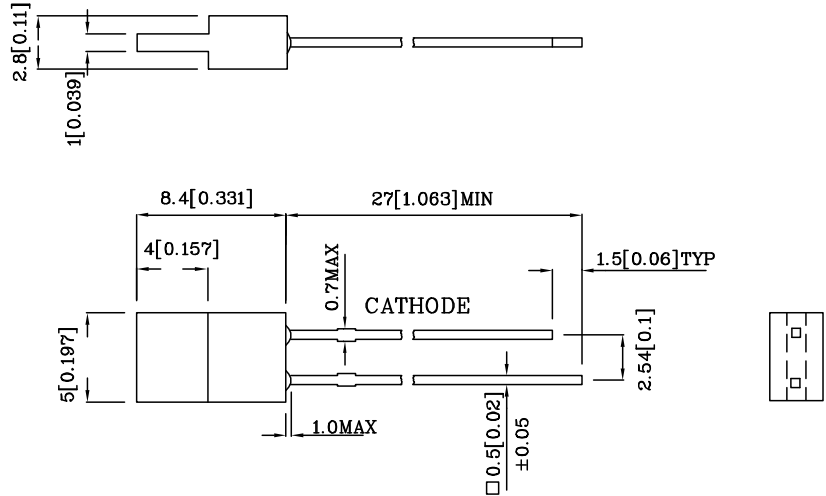


### Features

- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- SUITABLE FOR LEVEL INDICATOR.
- RoHS COMPLIANT.



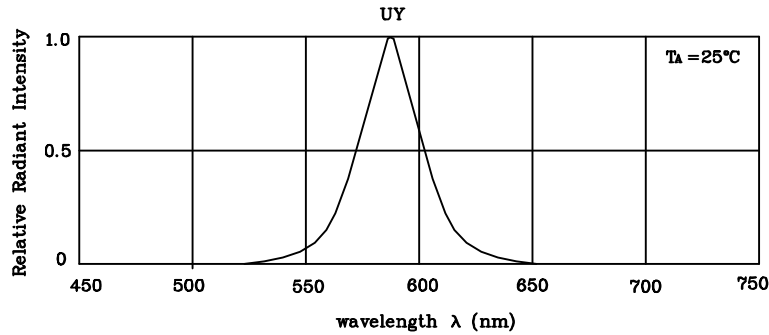
### Notes:

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

| Absolute maximum ratings<br>( $T_A=25^\circ\text{C}$ )         |                     | UY<br>(GaAsP/<br>GaP) | Unit |
|--|---------------------|-----------------------|------|
| Reverse Voltage  | $V_R$               | 5                     | V    |
| Forward Current  | $I_F$               | 30                    | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{FS}$            | 140                   | mA   |
| Power Dissipation  | $P_T$               | 105                   | 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 |                       |      |

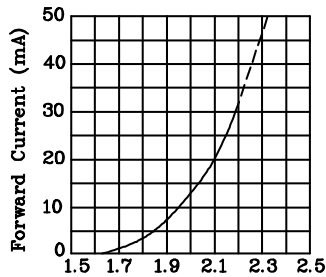
| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )              |                 | UY<br>(GaAsP/<br>GaP) | Unit          |
|--|-----------------|-----------------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=10\text{mA}$ )                      | $V_F$           | 1.95                  | V             |
| Forward Voltage (Max.)<br>( $I_F=10\text{mA}$ )                      | $V_F$           | 2.5                   | V             |
| Reverse Current<br>( $V_R=5\text{V}$ )                               | $I_R$           | 10                    | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission<br>( $I_F=10\text{mA}$ )              | $\lambda_P$     | 590                   | nm            |
| Wavelength of Dominant<br>Emission<br>( $I_F=10\text{mA}$ )          | $\lambda_D$     | 588                   | nm            |
| Spectral Line Full Width<br>At Half-Maximum<br>( $I_F=10\text{mA}$ ) | $\Delta\lambda$ | 35                    | nm            |
| Capacitance<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                 | $C$             | 20                    | pF            |

| Part<br>Number  | Emitting<br>Color | Emitting<br>Material | Lens-color      | Luminous<br>Intensity<br>( $I_F=10\text{mA}$ )<br>mcd |      | Wavelength<br>nm<br>$\lambda_P$ | Viewing<br>Angle<br>$2\theta_{1/2}$ |
|---|-------------------|----------------------|-----------------|---|------|---------------------------------|-------------------------------------|
|   |                   |                      |                 | min.  | typ. |                                 |                                     |
| XSUY22D   | Yellow            | GaAsP/GaP            | Yellow Diffused | 1.8   | 4.8  | 590                             | 110°                                |
| Published Date : MAY 26,2005      Drawing No : XDSA2432      V3      Checked : B.L.LIU      P.1/3 |                   |                      |                 |   |      |                                 |                                     |

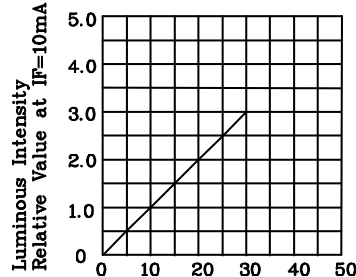


RELATIVE INTENSITY Vs. WAVELENGTH

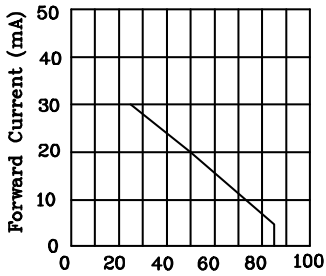
❖ UY



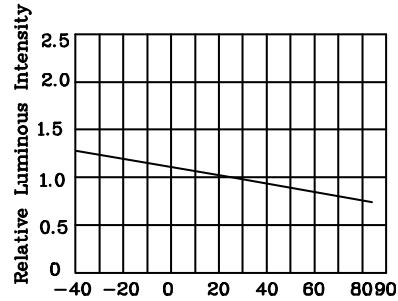
FORWARD CURRENT Vs. FORWARD VOLTAGE



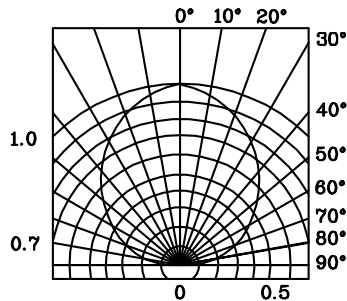
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

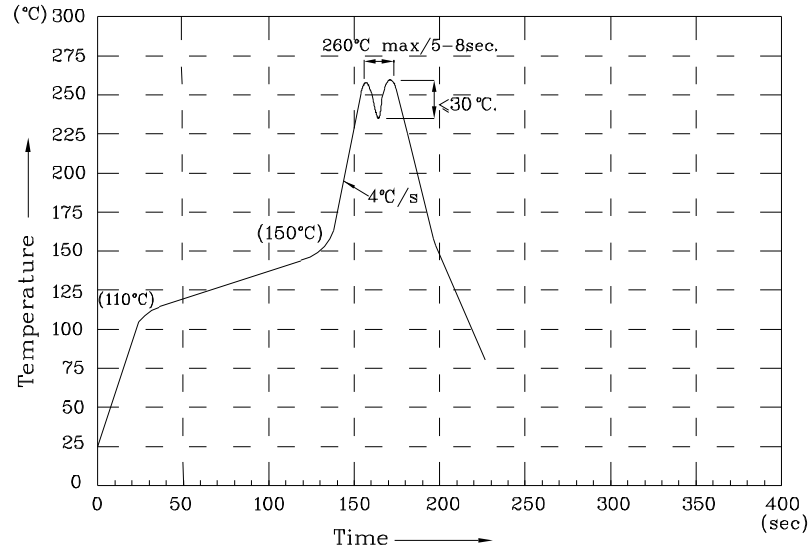


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.