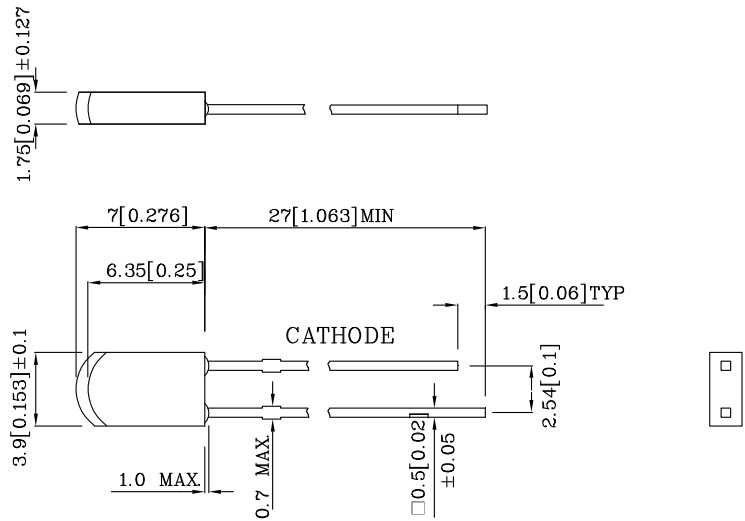


**Features**

- LOW POWER CONSUMPTION.
- ROUNDED END RECTANGULAR SHAPE
- LONG LIFE - SOLID STATE RELIABILITY.
- I.C. COMPATIBLE.
- RoHS COMPLIANT.



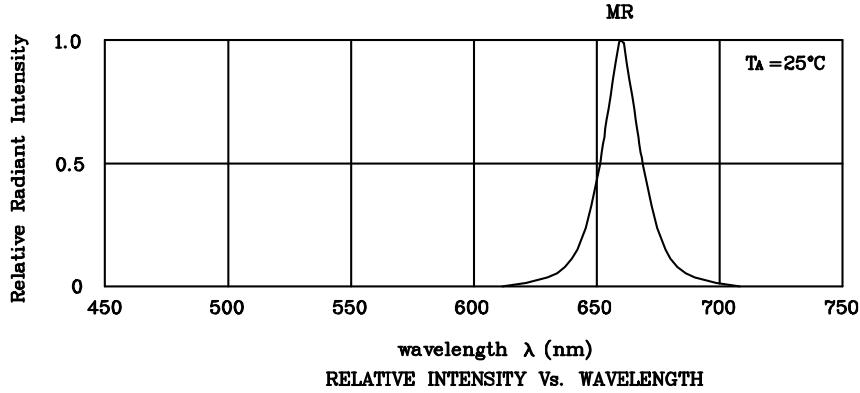
Notes:

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

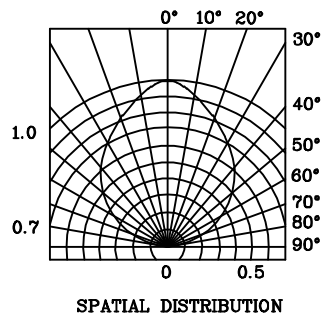
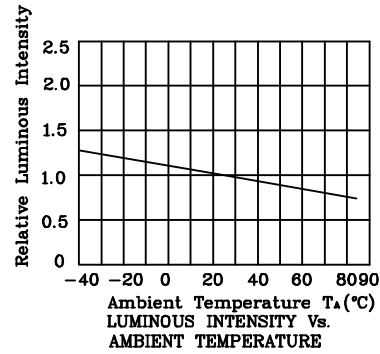
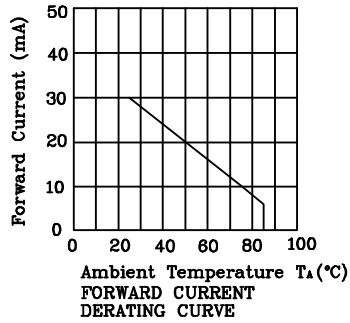
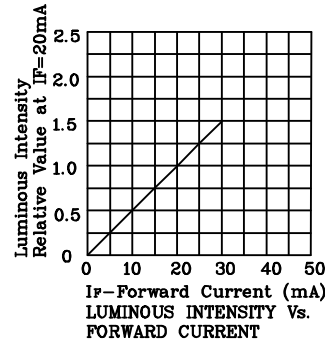
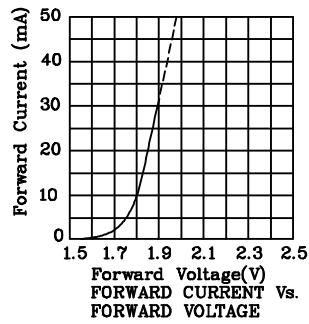
| Absolute Maximum Ratings<br>(TA=25°C)                         |                     | MR<br>(GaAlAs) | Unit |
|---|---------------------|----------------|------|
| Reverse Voltage   | VR                  | 5              | V    |
| Forward Current   | IF                  | 30             | mA   |
| Forward Current (peak)<br>1/10Duty Cycle<br>0.1ms Pulse Width | iFS                 | 155            | mA   |
| Power Dissipation   | PT                  | 100            | mW   |
| Operating Temperature   | TA                  | -40 ~ +85      | °C   |
| Storage Temperature   | Tstg                | -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>(TA=25°C)                   |                 | MR<br>(GaAlAs) | Unit |
|--|-----------------|----------------|------|
| Forward Voltage (typ.)<br>(IF=20mA)                      | VF              | 1.85           | V    |
| Forward Voltage (max.)<br>(IF=20mA)                      | VF              | 2.5            | V    |
| Reverse Current<br>(VR=5V)                               | IR              | 10             | uA   |
| Wavelength of Peak<br>Emission<br>(IF=20mA)              | $\lambda P$     | 660            | nm   |
| Wavelength of Dominant<br>Emission<br>(IF=20mA)          | $\lambda D$     | 640            | nm   |
| Spectral Line Full Width<br>At Half-Maximum<br>(IF=20mA) | $\Delta\lambda$ | 20             | nm   |
| Capacitance<br>(VF=0V, f=1MHz)                           | C               | 45             | pF   |

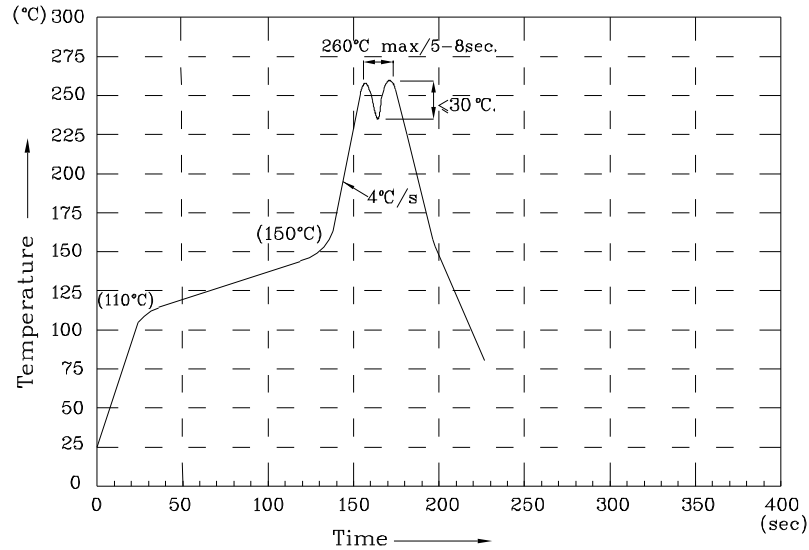
| Part<br>Number   | Emitting<br>Color | Emitting<br>Material | Lens-color   | Luminous<br>Intensity<br>(IF=20mA)<br>mcd |      | Wavelength<br>nm<br>$\lambda P$ | Viewing<br>Angle<br>$2\theta$ 1/2 |
|--|-------------------|----------------------|--------------|---|------|---------------------------------|-----------------------------------|
|  |                   |                      |              | min.                                      | typ. |                                 |                                   |
| XSMR73D  | Red               | GaAlAs               | Red Diffused | 70  | 148  | 660                             | 100°                              |
| Published Date : MAY 16, 2005      Drawing No : XDSA8102      V1      Checked : B.L.LIU      P.1/3 |                   |                      |              |   |      |                                 |                                   |



❖ MR



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.