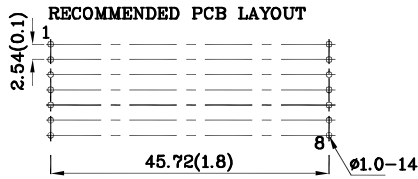
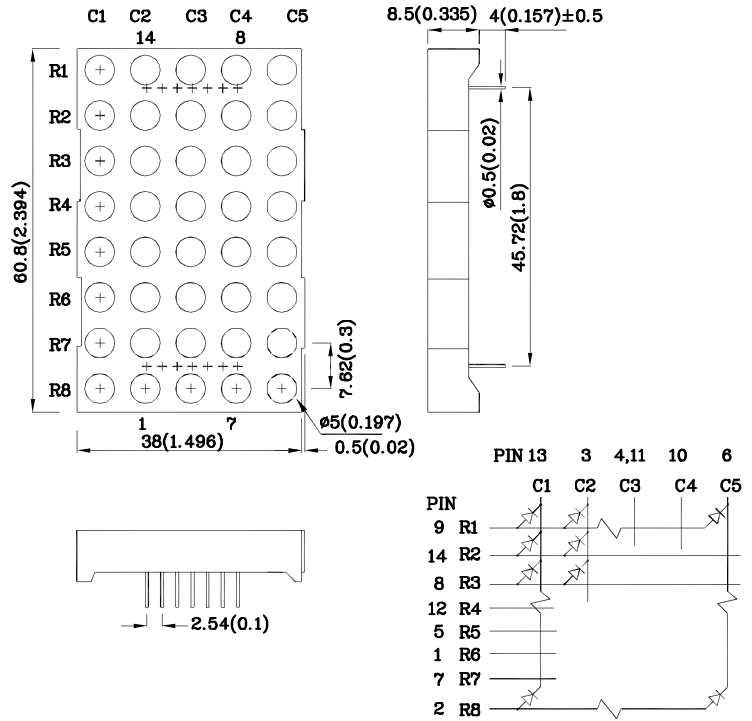


**Features**

- Low power consumption
- Robust package
- I.C. Compatible
- Standard configuration: Gray face w/ white dots
- Optional black face provides superior color contrast
- RoHS Compliant



**Package Schematics**



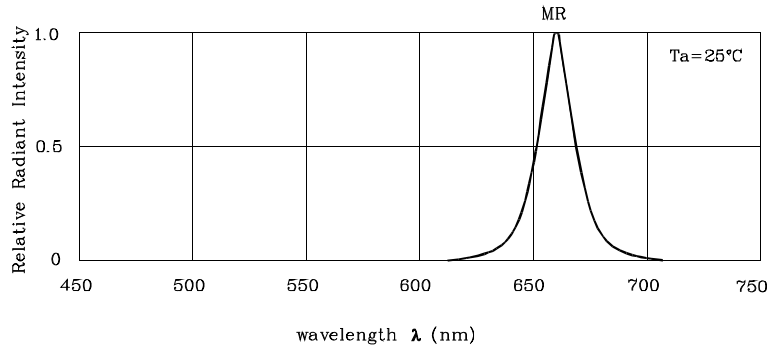
**Notes:**

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

| Absolute Maximum Ratings<br>( $T_A=25^\circ\text{C}$ )         |                       | MR<br>(GaAlAs) | 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 | $i_{FS}$              | 155            | mA   |
| Power Dissipation  | $P_D$                 | 75             | 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 3-5 Seconds |                |      |

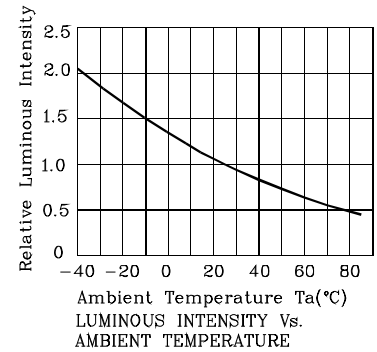
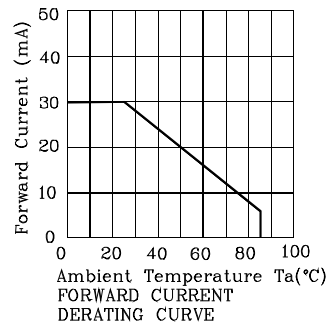
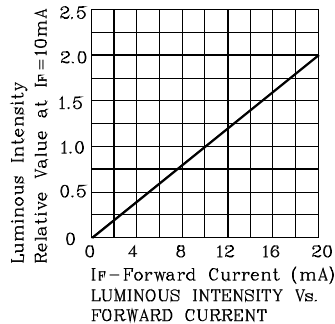
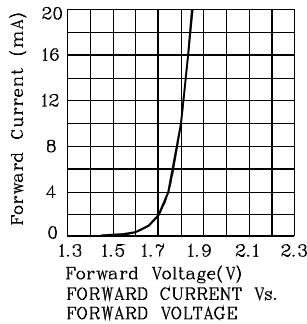
| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                     |                 | MR<br>(GaAlAs) | Unit          |
|---|-----------------|----------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=10\text{mA}$ )                             | $V_F$           | 1.8            | V             |
| Forward Voltage (Max.)<br>( $I_F=10\text{mA}$ )                             | $V_F$           | 2.5            | V             |
| Reverse Current (Max.)<br>( $V_R=5\text{V}$ )                               | $I_R$           | 10             | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission (Typ.)<br>( $I_F=10\text{mA}$ )              | $\lambda_P$     | 660            | nm            |
| Wavelength of Dominant<br>Emission (Typ.)<br>( $I_F=10\text{mA}$ )          | $\lambda_D$     | 640            | nm            |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>( $I_F=10\text{mA}$ ) | $\Delta\lambda$ | 20             | nm            |
| Capacitance (Typ.)<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                 | C               | 45             | pF            |

| Part Number | Emitting Color | Emitting Material | Luminous Intensity<br>( $I_F=10\text{mA}$ )<br>ucd |       | Wavelength<br>nm<br>$\lambda_P$ | Description    |
|-------------|----------------|-------------------|--|-------|---------------------------------|----------------|
|             |                |                   | min.   | typ.  |                                 |                |
| XMMR60C     | Red            | GaAlAs            | 21000  | 60990 | 660                             | Column Cathode |

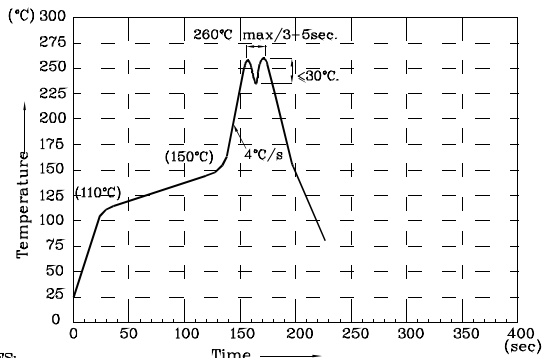


RELATIVE INTENSITY Vs. WAVELENGTH

❖ MR



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



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°C.
- 3.The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.During wave soldering, the PCB top-surface temperature should be kept below 105°C.
- 5.No more than once.

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

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

