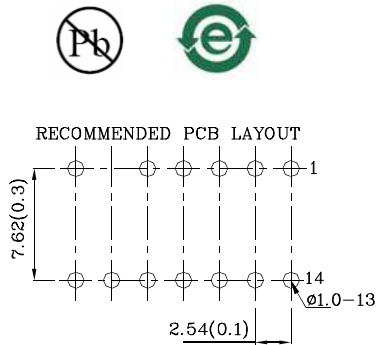
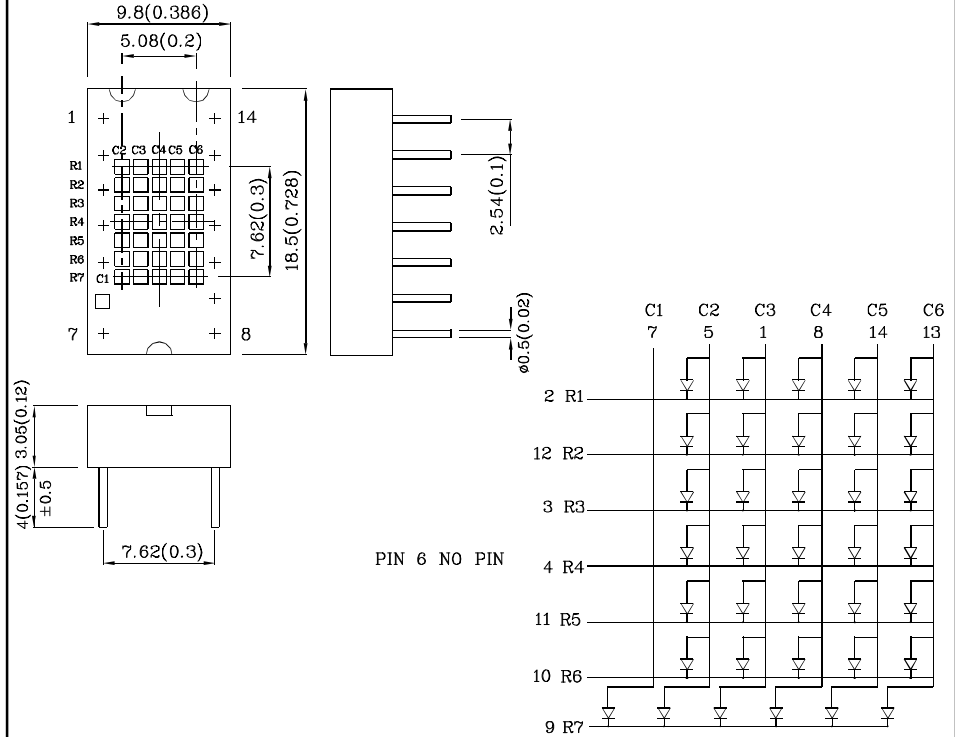


## Features

- Low power consumption
- Robust package
- I.C. Compatible
- Optional black face provides superior color contrast
- RoHS Compliant



## Package Schematics



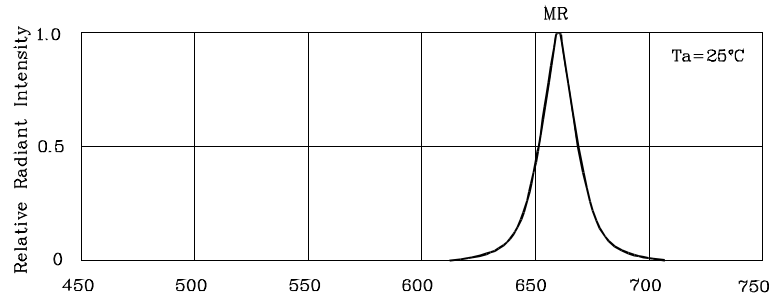
### Notes:

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 <sub>A</sub> =25°C)             |                       | MR<br>(GaAlAs) | Unit |
|----------------------------------------------------------------|-----------------------|----------------|------|
| Reverse Voltage                                                | V <sub>R</sub>        | 5              | V    |
| Forward Current                                                | I <sub>F</sub>        | 30             | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | i <sub>FS</sub>       | 155            | mA   |
| Power Dissipation                                              | P <sub>D</sub>        | 75             | 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 3-5 Seconds |                |      |

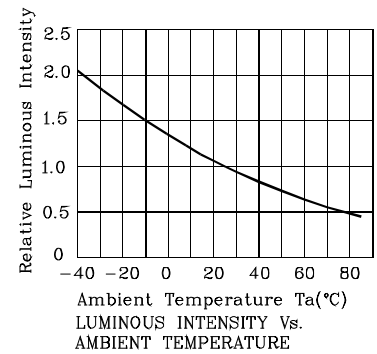
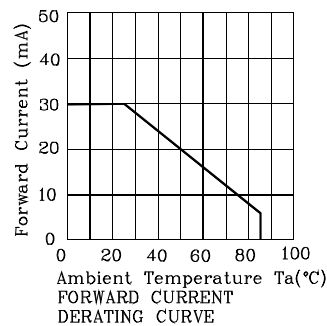
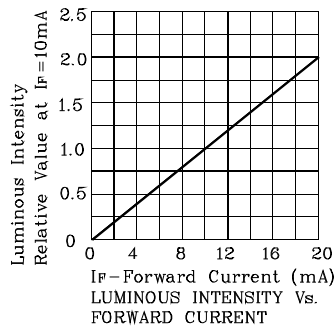
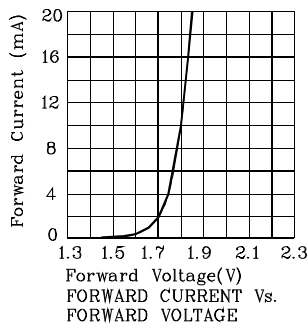
| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                     |                 | MR<br>(GaAlAs) | Unit          |
|-----------------------------------------------------------------------------|-----------------|----------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=10\text{mA}$ )                             | $V_F$           | 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<br>Number | Emitting<br>Color | Emitting<br>Material | Luminous<br>Intensity<br>(I <sub>F</sub> =10mA)<br>ucd |       | Wavelength<br>nm<br>λP | Description  |
|----------------|-------------------|----------------------|--------------------------------------------------------|-------|------------------------|--------------|
|                |                   |                      | min.                                                   | typ.  |                        |              |
| XMMR07A        | Red               | GaAlAs               | 14000                                                  | 29990 | 660                    | Column Anode |

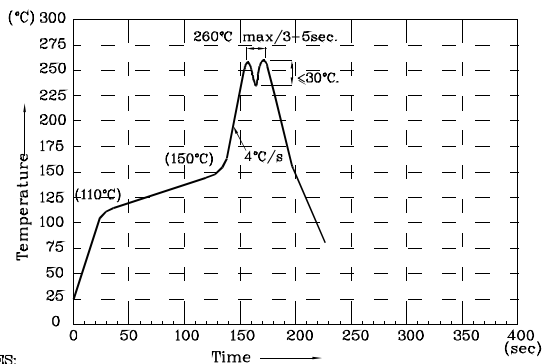


RELATIVE INTENSITY Vs. WAVELENGTH

❖ MR



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



NOTES:

1. Recommend the wave temperature  $245^{\circ}\text{C} \sim 260^{\circ}\text{C}$ . The maximum soldering temperature should be less than  $260^{\circ}\text{C}$ .
2. Do not apply stress on epoxy resins when temperature is over  $85^{\circ}\text{C}$ .
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  $105^{\circ}\text{C}$ .
5. No more than once.

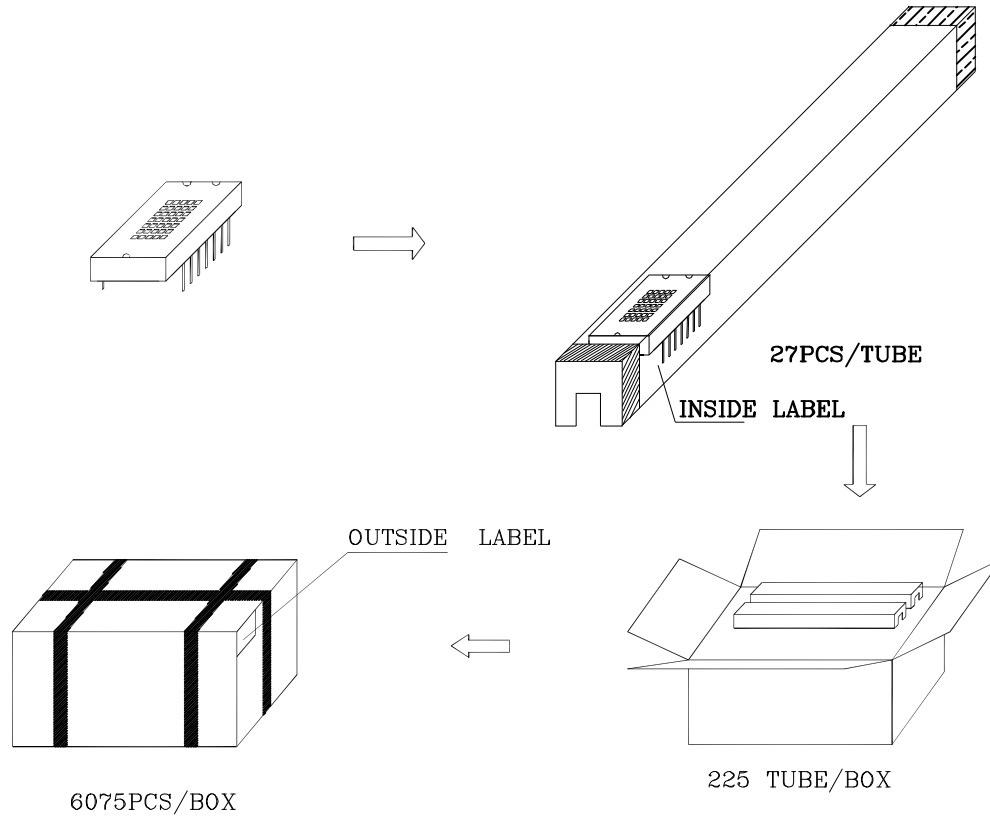
Remarks:

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:

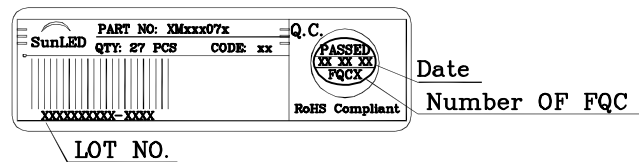
1. Wavelength:  $\pm 1\text{nm}$
2. Luminous Intensity / Luminous Flux:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.

## PACKING & LABEL SPECIFICATIONS



### Inside Label On IC-TUBE



### Outside Label On Box

