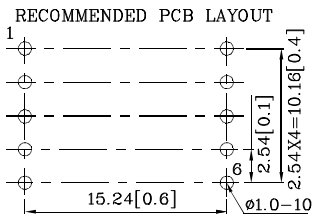
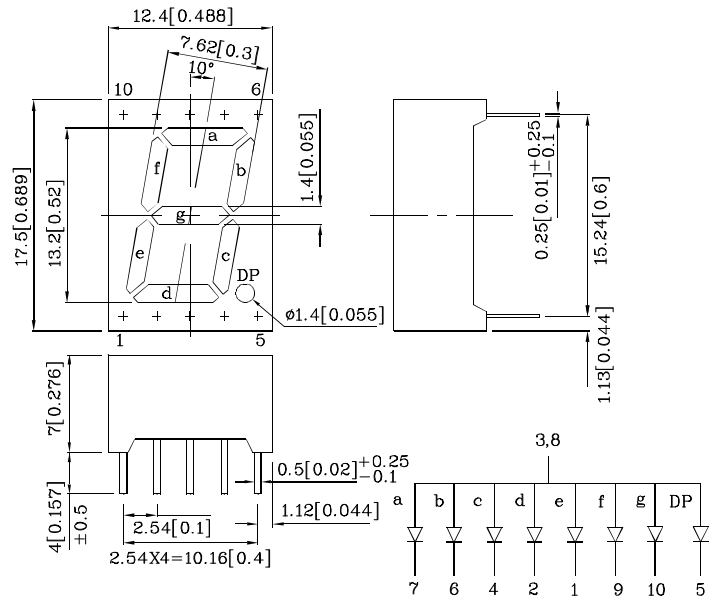


**Features**

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



**Package Schematics**



Notes:

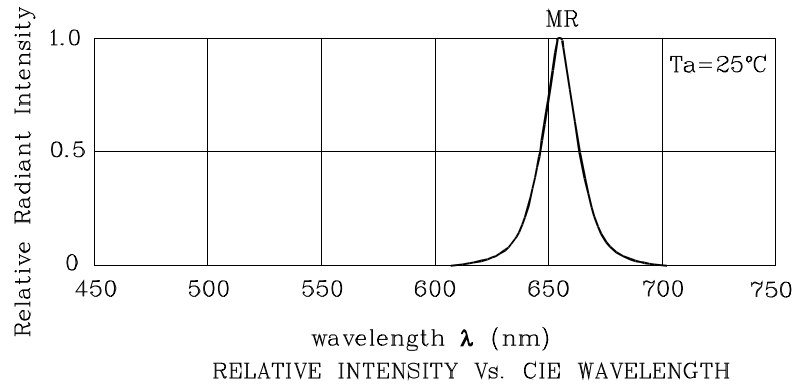
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
2. Specifications are subject to change without notice.

| 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 |                |      |

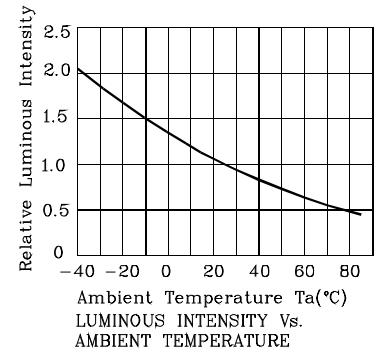
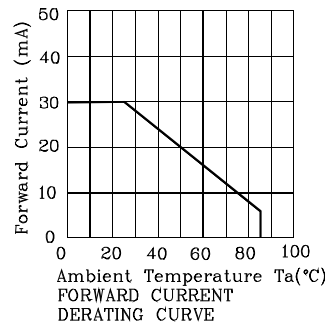
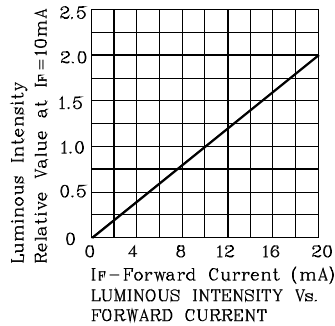
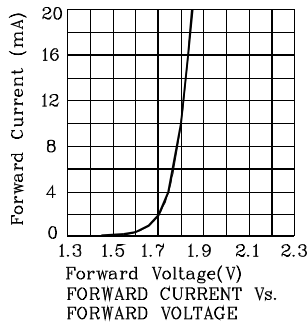
| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                         |                 | MR<br>(GaAlAs) | Unit          |
|---|-----------------|----------------|---------------|
| Forward Voltage (Typ.) ( $I_F=10\text{mA}$ )                                    | $V_F$           | 1.8            | V             |
| Forward Voltage (Max.) ( $I_F=10\text{mA}$ )                                    | $V_F$           | 2.5            | V             |
| Reverse Current (Max.) ( $V_R=5\text{V}$ )                                      | $I_R$           | 10             | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>( $I_F=10\text{mA}$ )     | $\lambda_P$     | 655*           | nm            |
| Wavelength of Dominant<br>Emission CIE127-2007* (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>CIE127-2007*<br>( $I_F=10\text{mA}$ )<br>ucd |                | Wavelength<br>CIE127-2007*<br>nm<br>$\lambda_P$ | Description                       |
|-------------|----------------|-------------------|--|----------------|---|-----------------------------------|
|             |                |                   | min.   | typ.           |   |                                   |
| XDMR13A     | Red            | GaAlAs            | 21000<br>5600*   | 33990<br>9990* | 655*  | Common Anode,<br>Rt.Hand Decimal. |

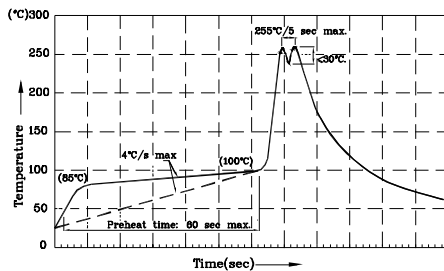
\*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ MR



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



- Notes:
1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
  2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
  3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
  4. Fixtures should not incur stress on the component when mounting and during soldering process.
  5. SAC 305 solder alloy is recommended.
  6. No more than one wave soldering pass.

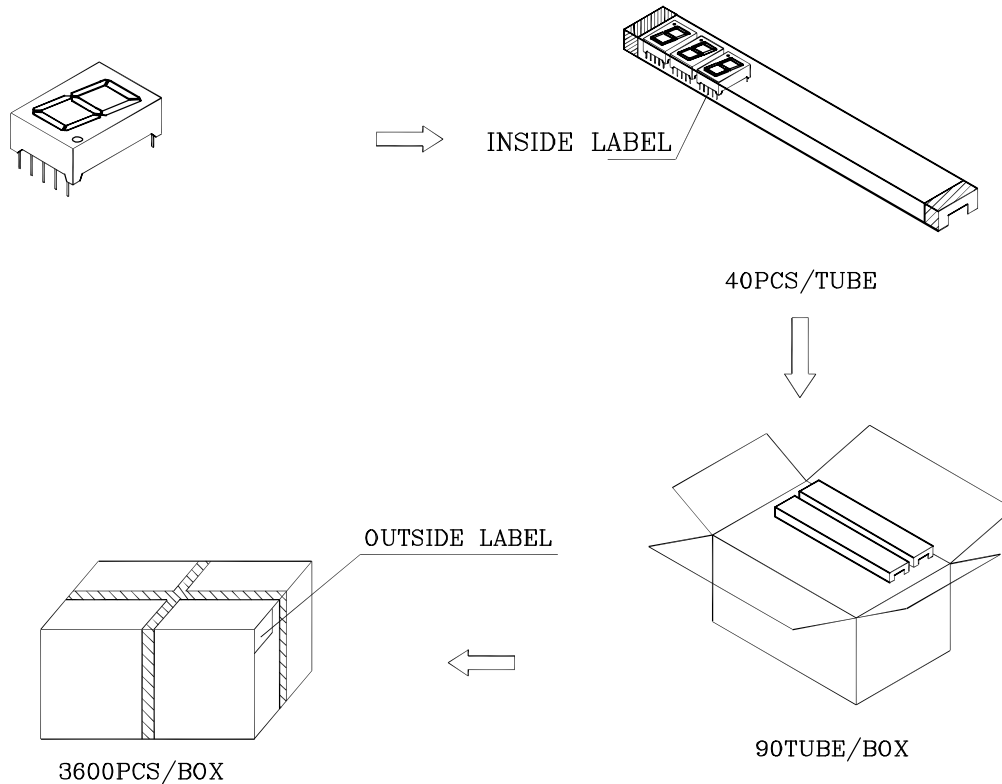
Remarks:

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:

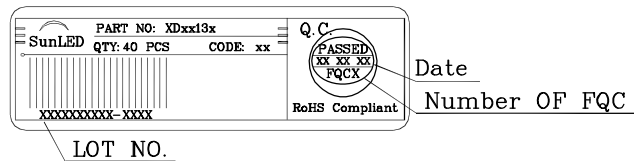
1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

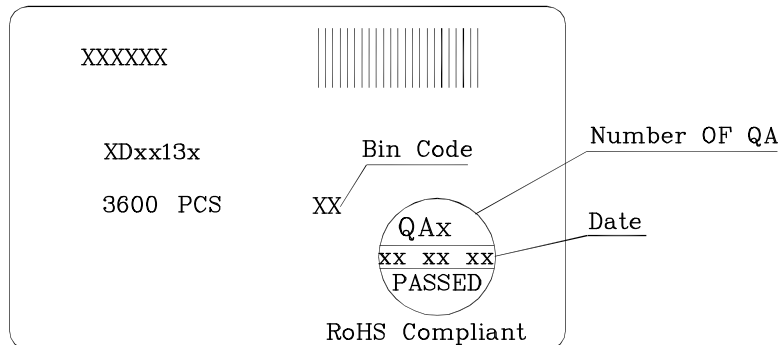
PACKING & LABEL SPECIFICATIONS



Inside Label On IC-tube



Outside Label On Box



TERMS OF USE

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