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## Part Number: XMMR07C

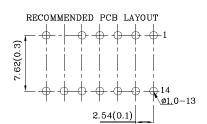
 $7.62\mathrm{mm}$  (0.3 ") SINGLE COLOR DOT MATRIX DISPLAY

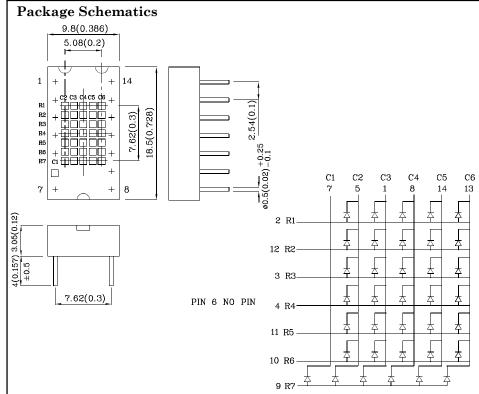
#### **Features**

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









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 (T <sub>A</sub> =25°C)                |                       | MR<br>(GaAlAs)    | Unit |  |
|--|-----------------------|-------------------|------|--|
| Reverse Voltage  | $V_{\mathrm{R}}$      | 5                 | V    |  |
| Forward Current  | $I_{\mathrm{F}}$      | 30                | mA   |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | ifs                   | 155               | mA   |  |
| Power Dissipation  | $P_{D}$               | P <sub>D</sub> 75 |      |  |
| Operating Temperature  | $T_{A}$               | -40 ~ +85         | °C   |  |
| Storage Temperature  | Tstg                  | -40 ~ +85         |      |  |
| Lead Solder Temperature<br>[2mm Below Package Base]            | 260°C For 3-5 Seconds |                   |      |  |

| Operating Characteristics (T <sub>A</sub> =25°C)                             | MR<br>(GaAlAs)      | Unit |    |
|--|---------------------|------|----|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =10mA)                             | $V_{\mathrm{F}}$    | 1.8  | V  |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =10mA)                             | $V_{\mathrm{F}}$    | 2.5  | V  |
| Reverse Current (Max.) $(V_R=5V)$  | ${ m I}_{ m R}$     | 10   | uA |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =10mA) | λΡ                  | 655* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$      | λD                  | 640* | nm |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =10mA) | $\triangle \lambda$ | 20   | nm |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | С                   | 45   | pF |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | C18:197/-9007/* |                | Wavelength<br>CIE127-2007*<br>nm λP | Description    |
|----------------|-------------------|----------------------|-----------------|----------------|-------------------------------------|----------------|
|                |                   |                      | min.            | typ.           |                                     |                |
| XMMR07C        | Red               | GaAlAs               | 14000<br>3600*  | 29990<br>7490* | 655*                                | Column Cathode |

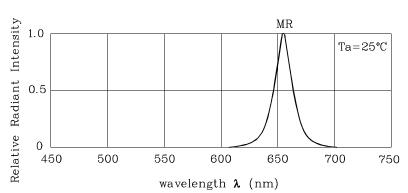
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Mar 03.2014

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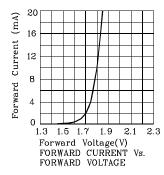
7.62mm (0.3 ") SINGLE COLOR DOT MATRIX DIS-

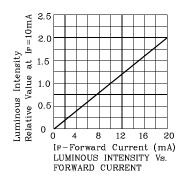
**PLAY** 

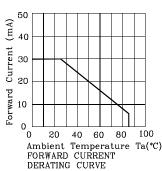


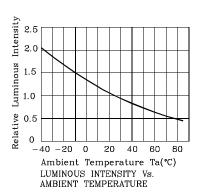
RELATIVE INTENSITY Vs. CIE WAVELENGTH

#### ❖ MR

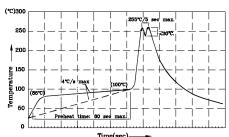








Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)



- nmend pre-heat temperature of 105°C or less (as measured with a noccouple attached to the LED pins) prior to immersion in the solder with a maximum solder bath temperature of 250°C wave soldering temperature between 245°C  $\sim$  255°C for 3 sec (5 sec
- 2.Peak wave soldering temperature betweenax).
  3.Do not apply stress to the epoxy resin (-Pixtures should not incur stress on the 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

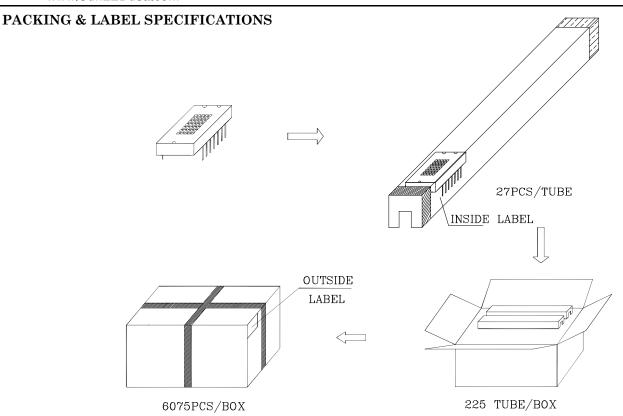
Note: Accuracy may depend on the sorting parameters.



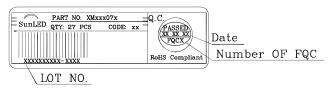
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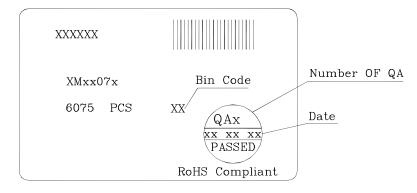




# Inside Label On IC-TUBE



# Outside Label On Box



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