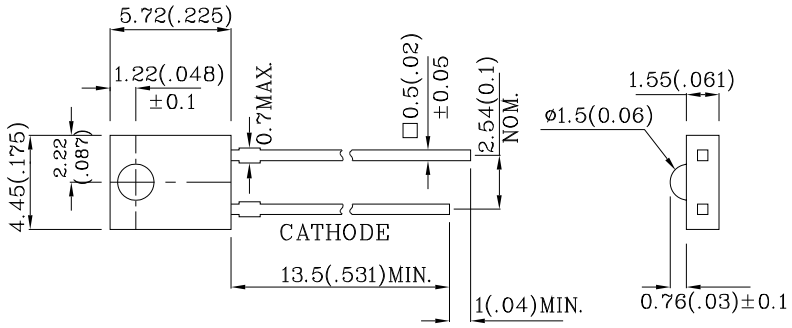
SunLED
www.SunLEDusa.com

**Part Number:** **XLMR04D**

1.5mm SIDE LOOK LED

## Features

- LOW POWER CONSUMPTION.
- SIDE LOOKING PACKAGE.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- LONG LIFE SOLID STATE RELIABILITY.
- RoHS COMPLIANT.



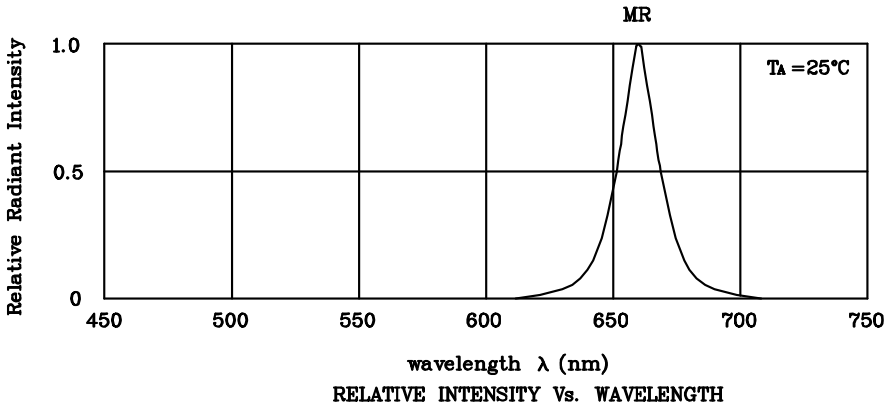

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

| **Absolute Maximum Ratings ($T_A$=25°C)** | | **MR (GaAlAs)** | **Unit** |
|---|---|---|---|
| Reverse Voltage | $V_R$ | 5 | V |
| Forward Current | $I_F$ | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | $i_{FS}$ | 155 | mA |
| Power Dissipation | $P_T$ | 75 | mW |
| Operating Temperature | $T_A$ | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | |
| Lead Solder Temperature [2mm Below Package Base] | 260°C For 3 Seconds | | |
| Lead Solder Temperature [5mm Below Package Base] | 260°C For 5 Seconds | | |

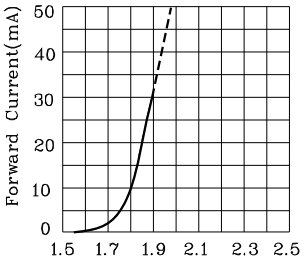
| **Operating Characteristics ($T_A$=25°C)** | | **MR (GaAlAs)** | **Unit** |
|---|---|---|---|
| Forward Voltage (Typ.) ($I_F$=20mA) | $V_F$ | 1.85 | V |
| Forward Voltage (Max.) ($I_F$=20mA) | $V_F$ | 2.5 | V |
| Reverse Current (Max.) ($V_R$=5V) | $I_R$ | 10 | uA |
| Wavelength Of Peak Emission (Typ.) ($I_F$=20mA) | λ P | 660 | nm |
| Wavelength Of Dominant Emission (Typ.) ($I_F$=20mA) | λ D | 640 | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) ($I_F$=20mA) | Δλ | 20 | nm |
| Capacitance (Typ.) ($V_F$=0V, f=1MHz) | C | 45 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity (IF=20mA) mcd | | Wavelength nm λ P | Viewing Angle 2 θ 1/2 |
|---|---|---|---|---|---|---|---|
| | | | | min. | typ. | | |
| XLMR04D | Red | GaAlAs | Red Diffused | 50 | 98 | 660 | 90° |

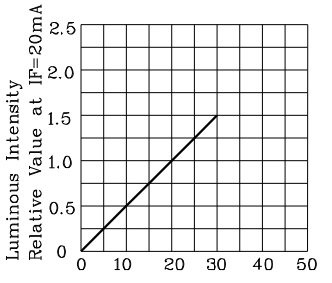



RELATIVE INTENSITY Vs. WAVELENGTH

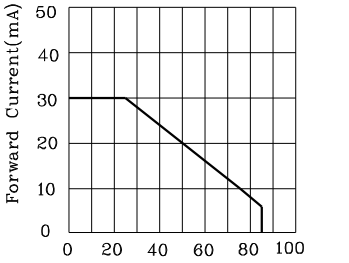
❖ **MR**



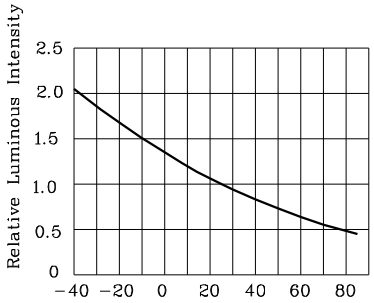

FORWARD CURRENT Vs.
FORWARD VOLTAGE



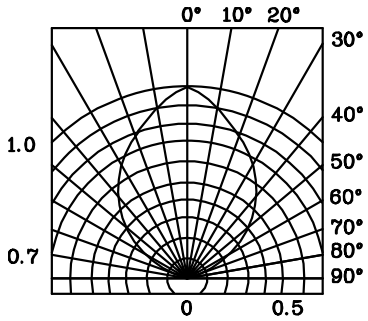

LUMINOUS INTENSITY Vs.
FORWARD CURRENT




FORWARD CURRENT
DERATING CURVE

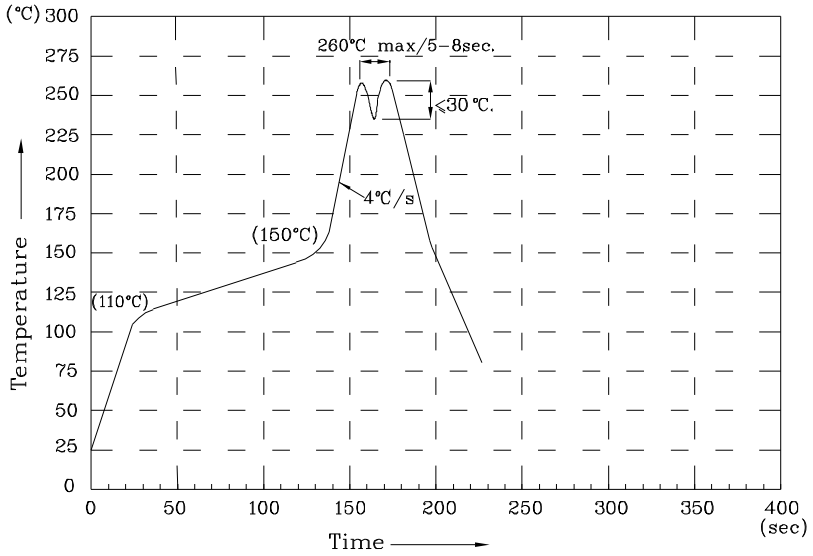



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE




SPATIAL DISTRIBUTION

Wave Soldering Profile For Lead-free Through-hole LED.




NOTES:

1. Recommend the wave temperature 245℃~260℃. The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85 degree℃.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.

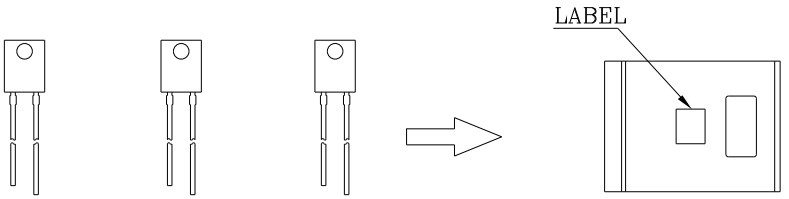
Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

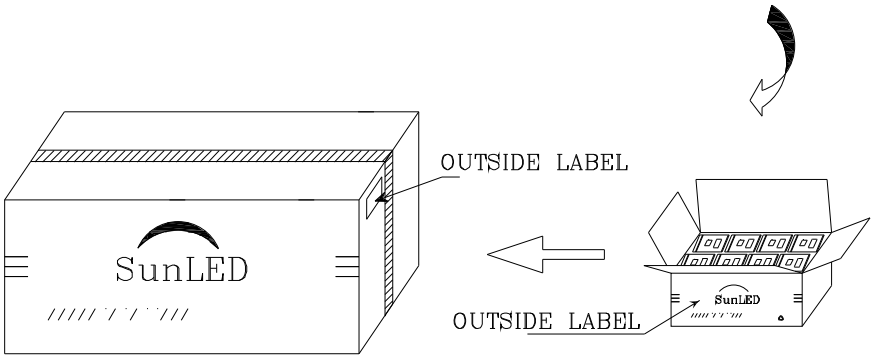
1. Wavelength: +/-1nm
2. Luminous intensity/ luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

## PACKING & LABEL SPECIFICATIONS XLMR04D




500 PCS/BAG




30K/BOX 15K/BOX


| |
|---|
| P/NO : XLxxx04x |
| QTY : 500 pcs CODE: XXX |
| S/N : XX |
| LOT NO : XXXXXXXXXXXXXXXXXXXXXXXX RoHS Compliant |