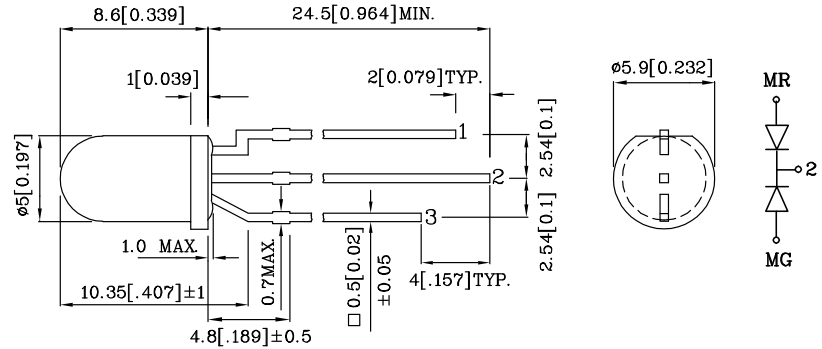


Features

- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- 3 LEADS WITH ONE COMMON LEAD.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.
- RoHS COMPLIANT.



- 1 ANODE RED
2 COMMON CATHODE
3 ANODE GREEN

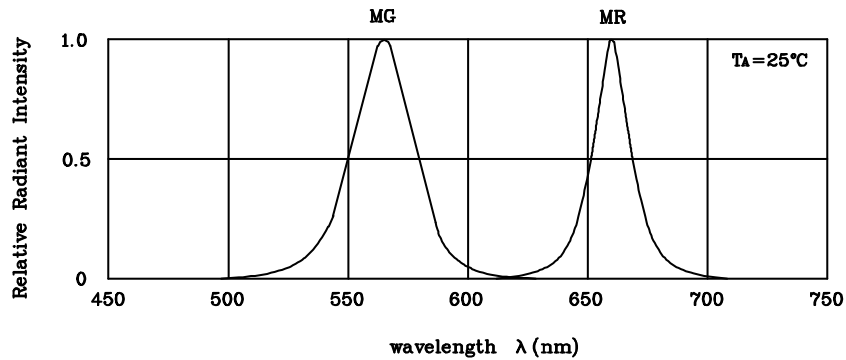
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ " unless otherwise noted.

| Absolute maximum ratings ($T_A=25^\circ\text{C}$) | | MR (GaAlAs) | MG (GaP) | Unit |
|--|---------------------|----------------|-------------|------|
| Reverse Voltage | V_R | 5 | 5 | V |
| Forward Current | I_F | 30 | 25 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i_{FS} | 155 | 140 | mA |
| Power Dissipation | P_T | 100 | 105 | mW |
| Operating Temperature | T_A | -40 ~ +85 | | °C |
| Storage Temperature | T_{stg} | -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 | | | |

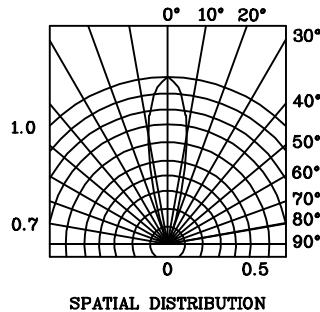
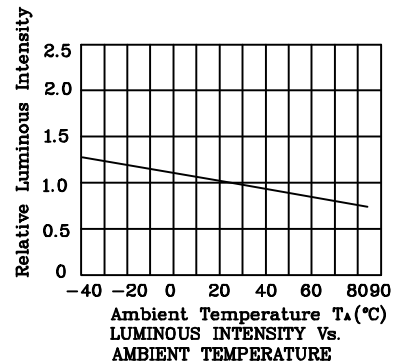
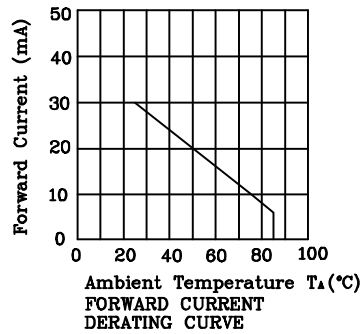
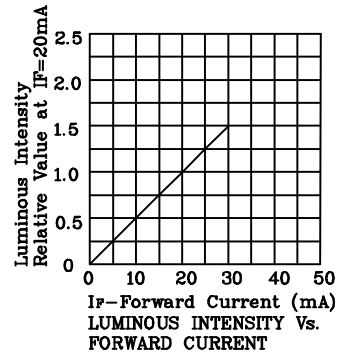
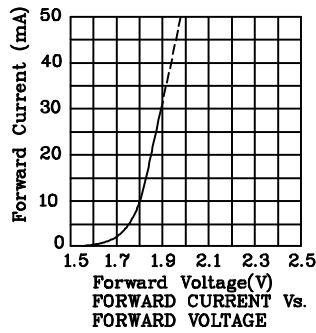
| Operating Characteristics ($T_A=25^\circ\text{C}$) | | MR (GaAlAs) | MG (GaP) | Unit |
|--|-----------------|----------------|-------------|---------------|
| Forward Voltage (Typ.) ($I_F=20\text{mA}$) | V_F | 1.85 | 2.2 | V |
| Forward Voltage (Max.) ($I_F=20\text{mA}$) | V_F | 2.5 | 2.5 | V |
| Reverse Current ($V_R=5\text{V}$) | I_R | 10 | 10 | μA |
| Wavelength of Peak Emission ($I_F=20\text{mA}$) | λ_P | 660 | 565 | nm |
| Wavelength of Dominant Emission ($I_F=20\text{mA}$) | λ_D | 640 | 568 | nm |
| Spectral Line Full Width At Half-Maximum ($I_F=20\text{mA}$) | $\Delta\lambda$ | 20 | 30 | nm |
| Capacitance ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 45 | 15 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity ($I_F=20\text{mA}$) mcd | | Wavelength nm λ_P | Viewing Angle $2\theta_{1/2}$ |
|----------------|-------------------|----------------------|-------------|---|------|---------------------------------|-------------------------------------|
| | | | | min. | typ. | | |
| XLMRMG59WCC | Red | GaAlAs | Water Clear | 280 | 597 | 660 | 24° |
| | Green | GaP | | 70 | 198 | | |

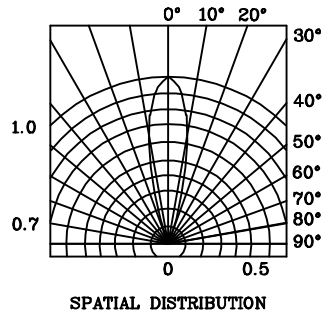
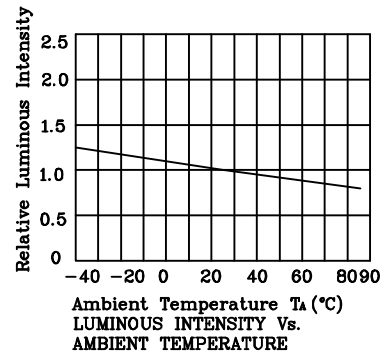
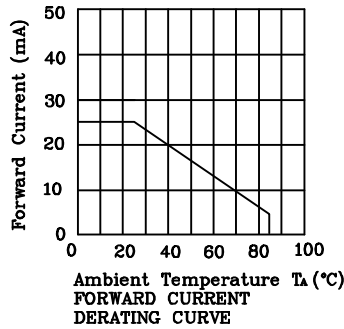
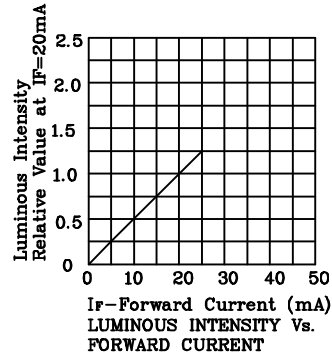
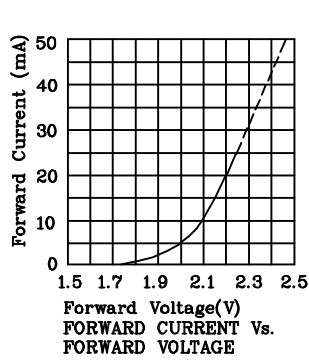


RELATIVE INTENSITY Vs. WAVELENGTH

❖ MR



❖ MG



Remarks:

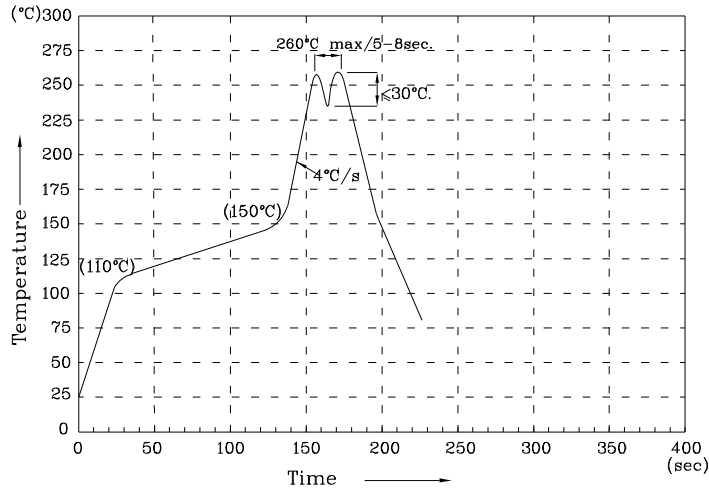
If special sorting is required (e.g. binning based on forward voltage, luminous intensity or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.

XLMRMG59WCC

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



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 degree°C.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.