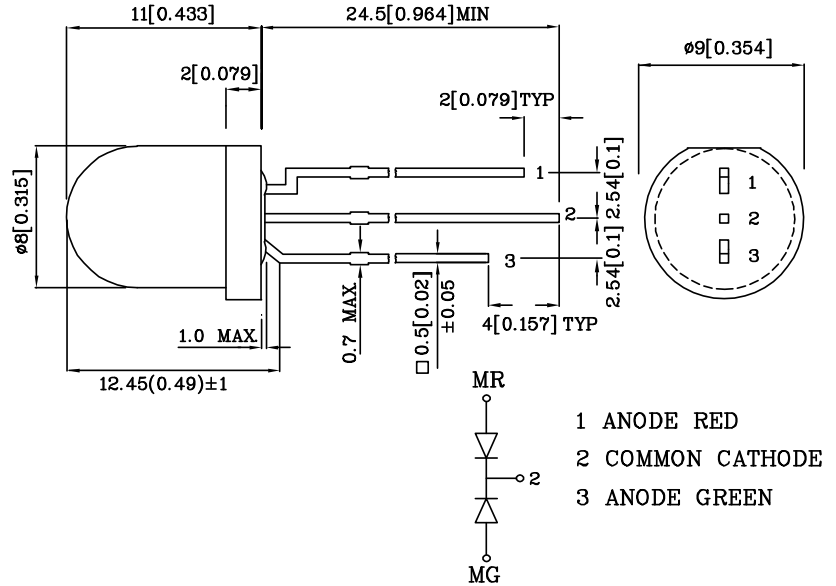


Features

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



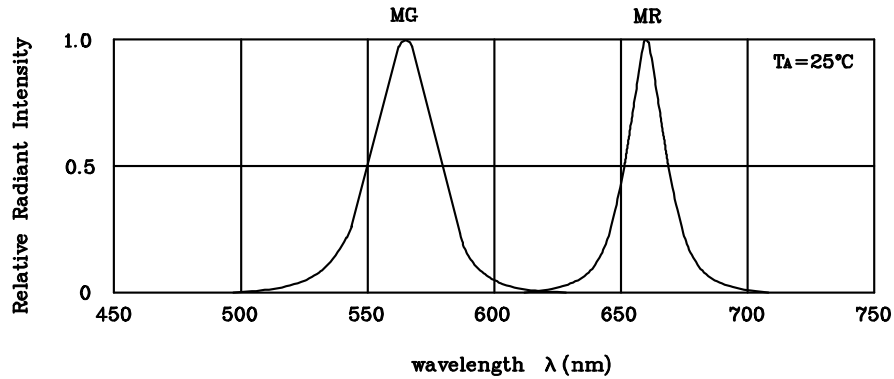
Notes:

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

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			

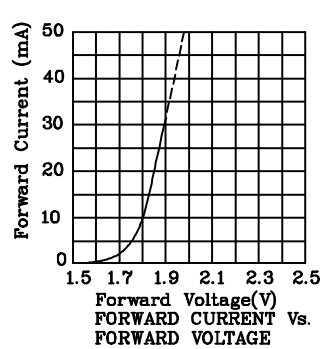
Operating Characteristics ($T_A=25^\circ\text{C}$)		MR (GaAlAs)	MG (GaP)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	1.85	2.2	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	2.5	2.5	V
Reverse Current ($V_R=5\text{V}$)	I_R	10	10	μA
Wavelength of Peak Emission ($I_F=20\text{mA}$)	λ_P	660	565	nm
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 2θ 1/2
				min.	typ.		
XLMRMG81MCC	Red	GaAlAs	White Diffused	110	198	660	50°
	Green	GaP		18	49	565	

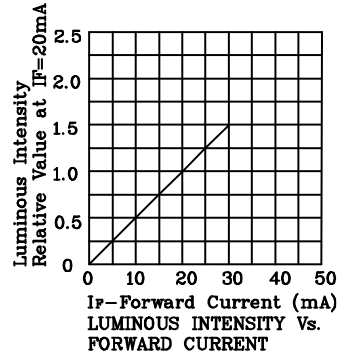


RELATIVE INTENSITY Vs. WAVELENGTH

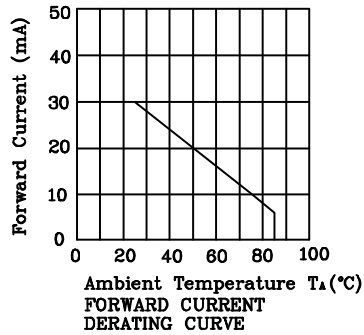
❖ MR



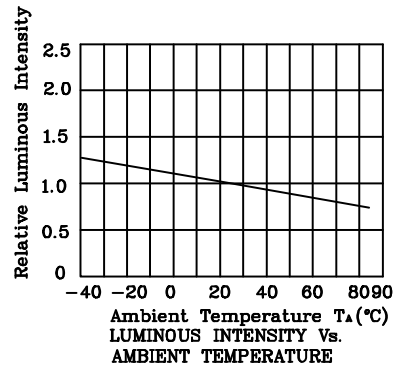
FORWARD CURRENT Vs. FORWARD VOLTAGE



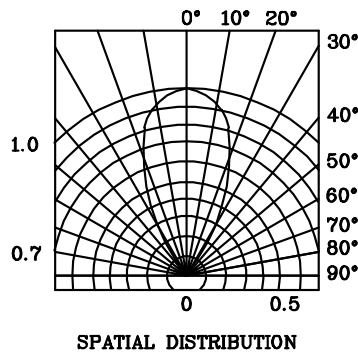
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

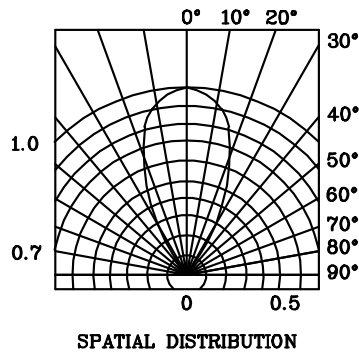
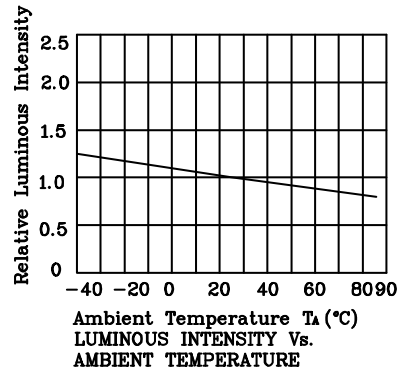
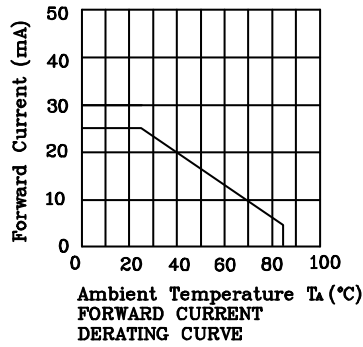
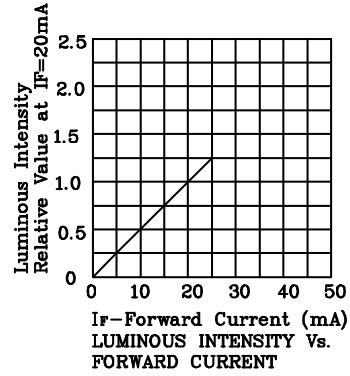
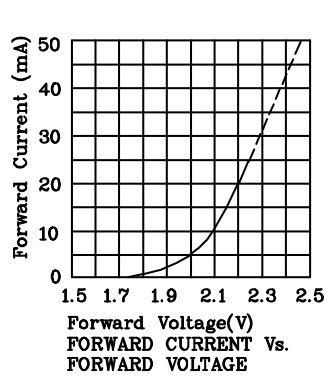


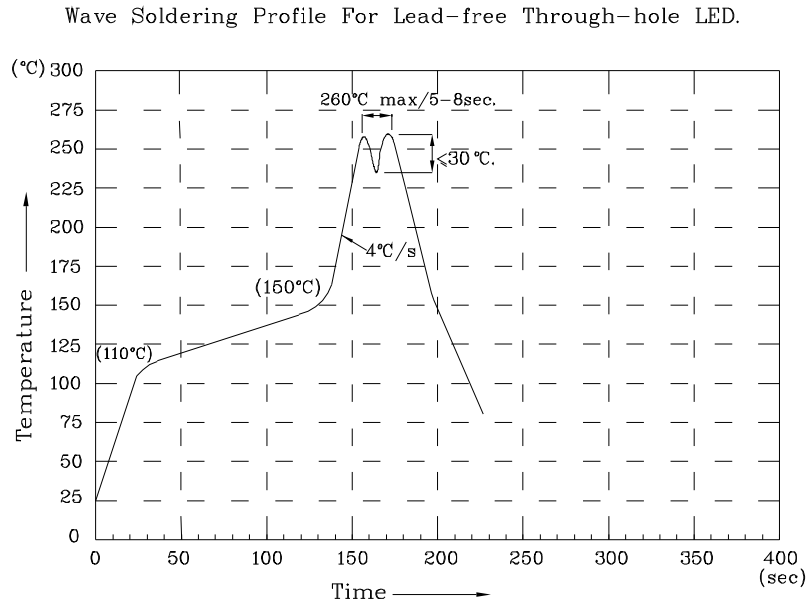
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

❖ MG





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.

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.