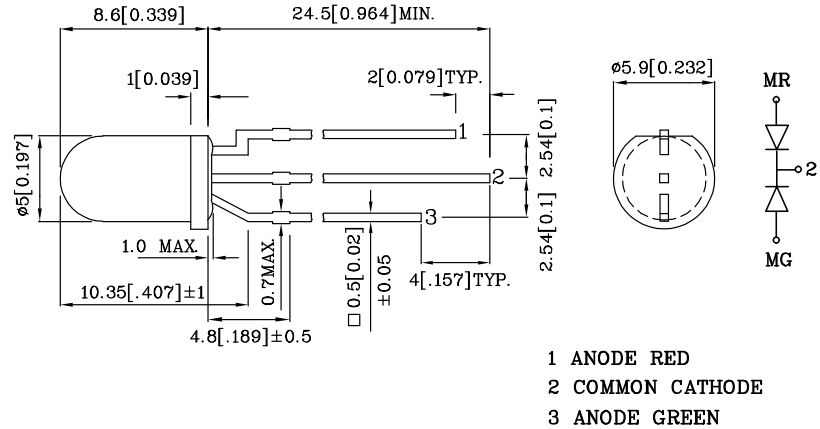


Features

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



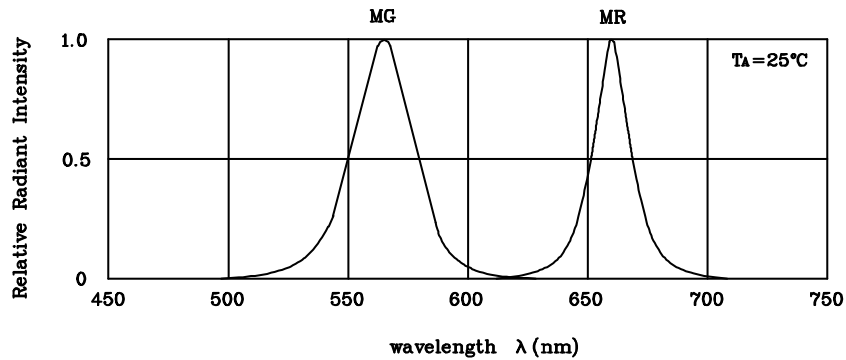
Notes:

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

Absolute maximum ratings (TA=25°C)		MR (GaAlAs)	MG (GaP)	Unit
Reverse Voltage	VR	5	5	V
Forward Current	IF	30	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	155	140	mA
Power Dissipation	Pr	100	105	mW
Operating Temperature	TA	-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			

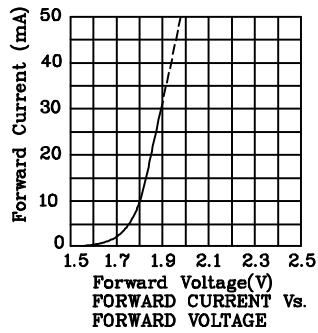
Operating Characteristics (TA=25°C)		MR (GaAlAs)	MG (GaP)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	1.85	2.2	V
Forward Voltage (Max.) (IF=20mA)	VF	2.5	2.5	V
Reverse Current (VR=5V)	IR	10	10	uA
Wavelength of Peak Emission (IF=20mA)	λP	660	565	nm
Wavelength of Dominant Emission (IF=20mA)	λD	640	568	nm
Spectral Line Full Width At Half-Maximum (IF=20mA)	$\Delta\lambda$	20	30	nm
Capacitance (VF=0V, f=1MHz)	C	45	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λP	Viewing Angle $2\theta 1/2$
				min.	typ.		
XLMRMG59MCC	Red	GaAlAs	White Diffused	110	218	660	60°
	Green	GaP		36	59	565	

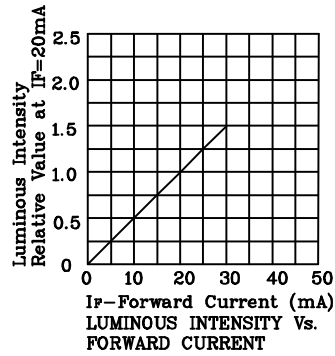


RELATIVE INTENSITY Vs. WAVELENGTH

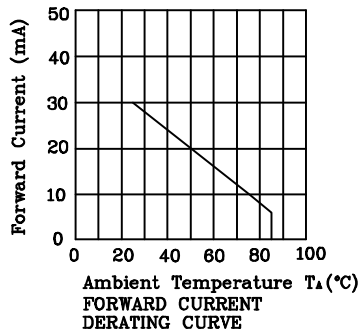
❖ MR



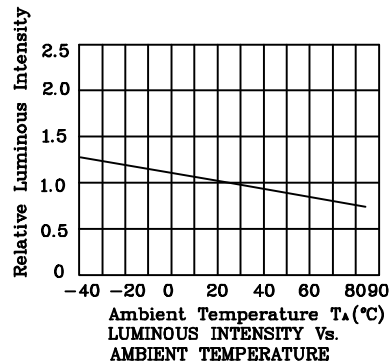
FORWARD CURRENT Vs. FORWARD VOLTAGE



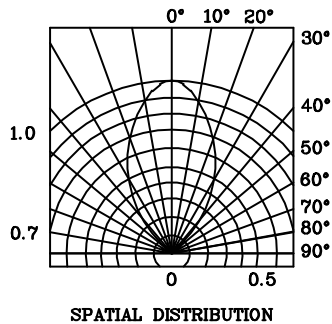
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

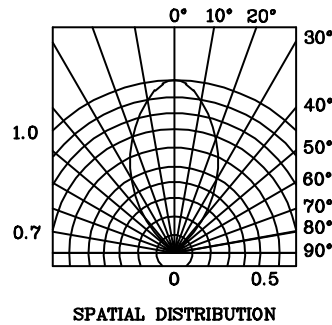
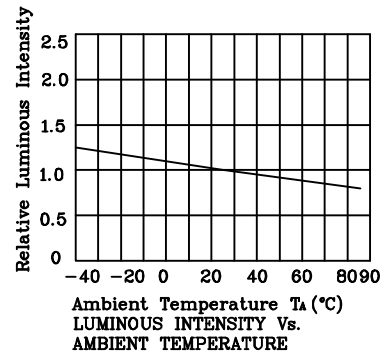
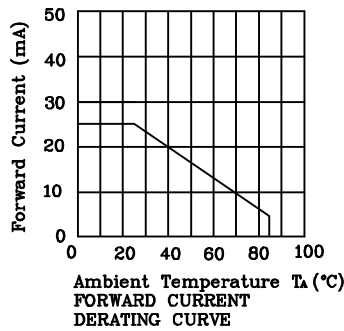
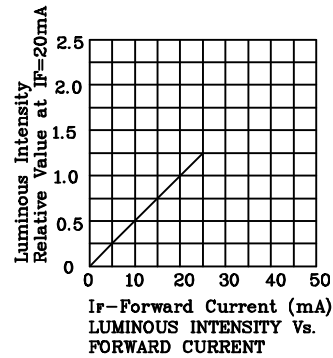
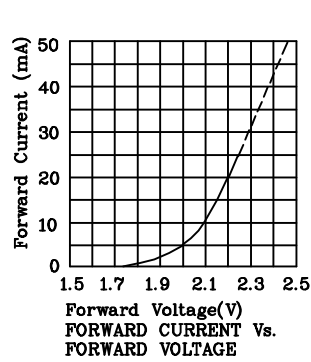


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

❖ MG



Remarks:

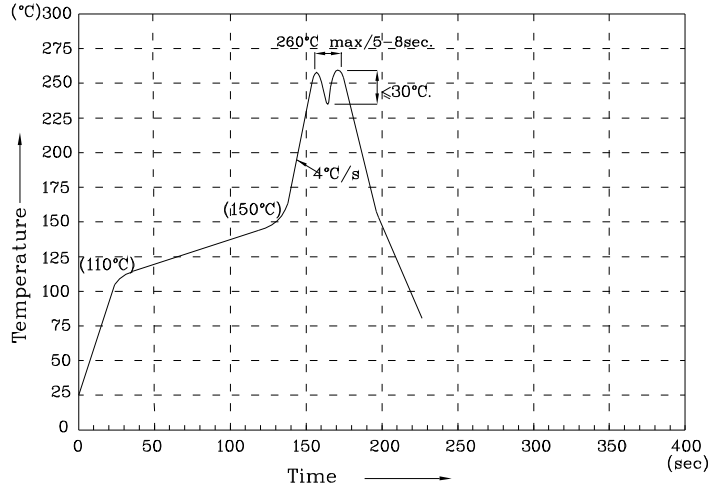
If special sorting is required (e.g. binning based on forward voltage, luminous intensity or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.

XLMRMG59MCC

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.