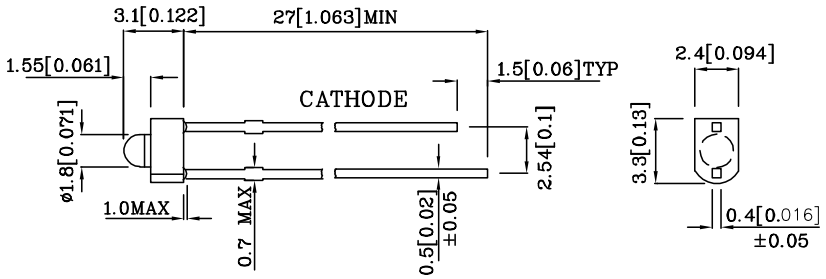
SunLED
www.SunLED.com

Part Number: **XLMR61D**

1.8mm SOLID STATE LAMP

Features

- 1.8mm DIAMETER SMALL SIZE LED LAMP.
- ULTRA BRIGHTNESS IS AVAILABLE.
- RELIABLE AND RUGGED.
- VERSATILE MOUNTING ON P. C. BOARD OR PANEL.
- RoHS COMPLIANT.



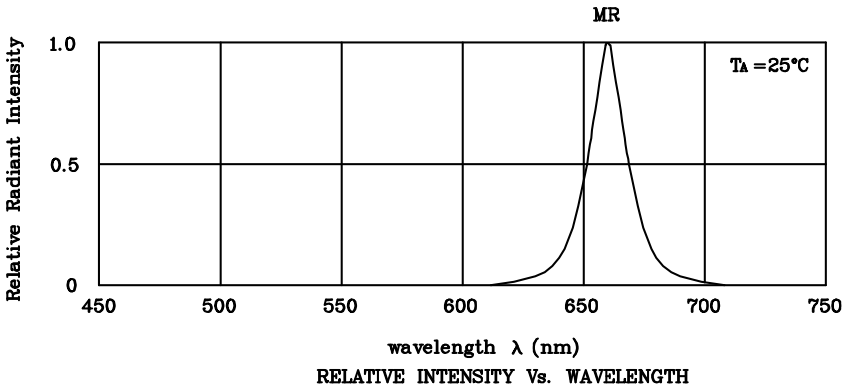
Notes:

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

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	iFS	155	mA
Power Dissipation	P_T	100	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 [3mm below package base]	260°C For 5 Seconds		

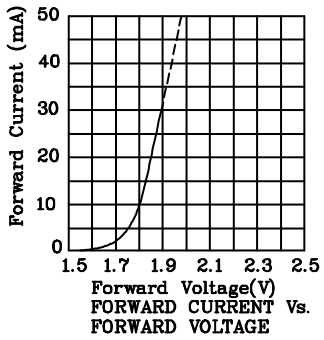
Operating Characteristics (T_A=25°C)		**MR (GaAlAs)**	**Unit**
Forward Voltage (typ.) (I_F=20mA)	VF	1.85	V
Forward Voltage (max.) (I_F=20mA)	VF	2.5	V
Reverse Current (V_R=5V)	IR	10	uA
Wavelength of Peak Emission (I_F=20mA)	λ P	660	nm
Wavelength of Dominant Emission (I_F=20mA)	λ D	640	nm
Spectral Line Full Width At Half-Maximum (I_F=20mA)	Δλ	20	nm
Capacitance (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.		
XLMR61D	Red	GaAlAs	Red Diffused	70	198	660	70°

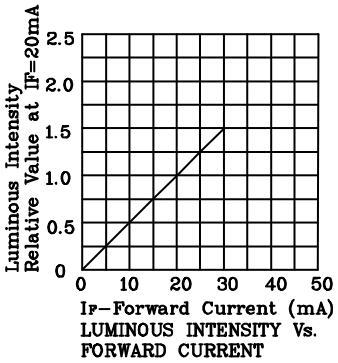


RELATIVE INTENSITY Vs. WAVELENGTH

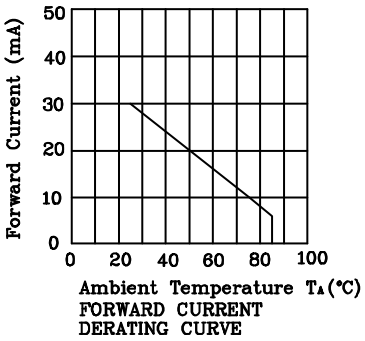
❖ **MR**



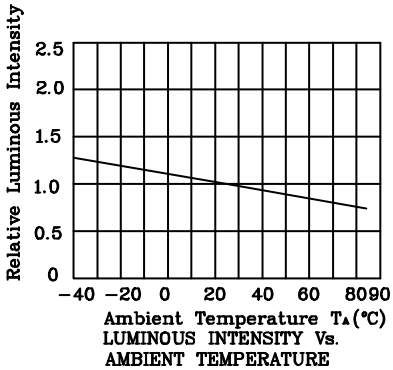
FORWARD CURRENT Vs.
FORWARD VOLTAGE



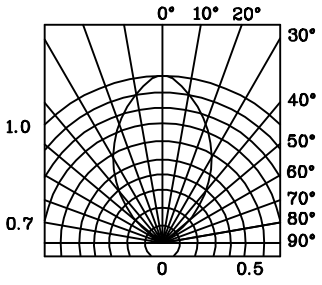
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

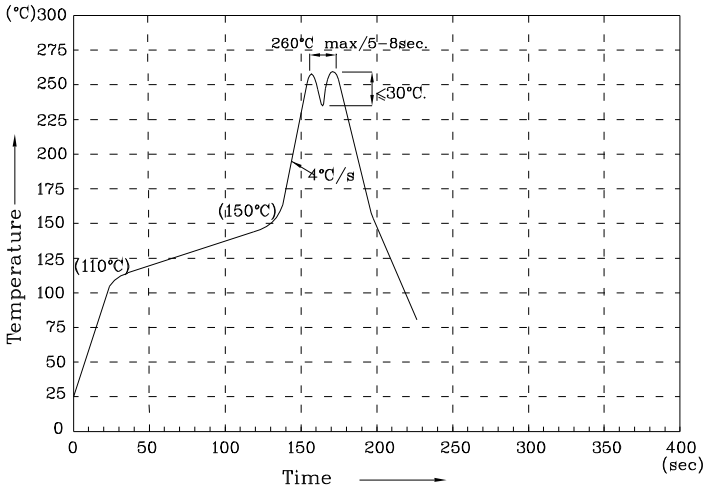


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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



NOTES:

1. Recommend the wave temperature 245°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.