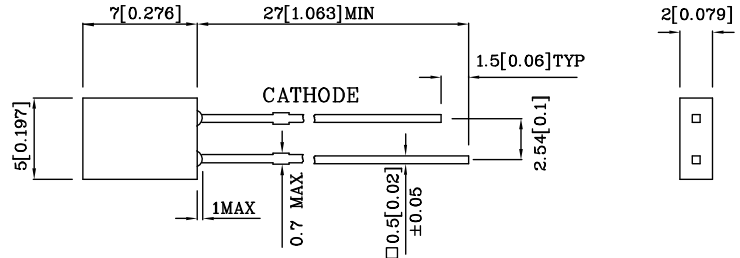


### Features

- LOW POWER CONSUMPTION.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- SUITABLE FOR LEVEL INDICATOR.
- LONG LIFE - SOLID STATE RELIABILITY.
- RoHS COMPLIANT.



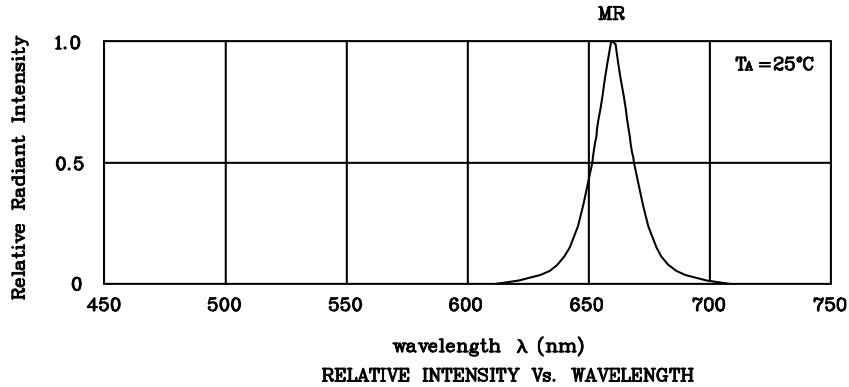
### Notes:

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

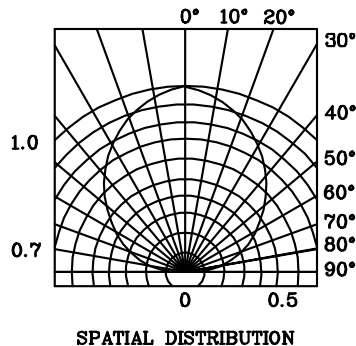
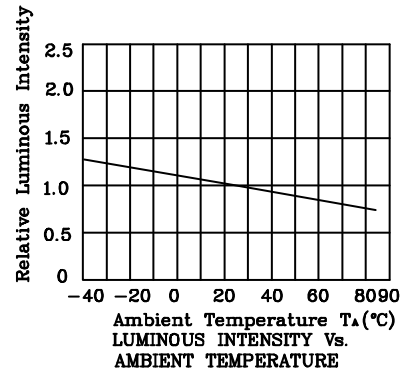
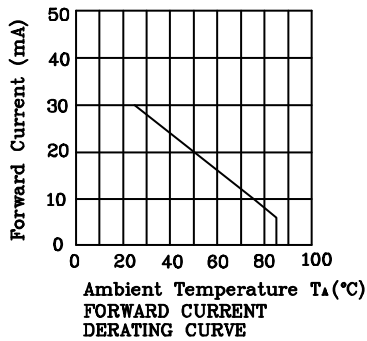
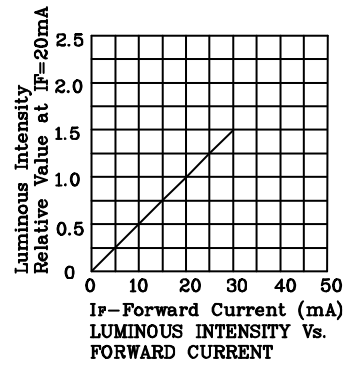
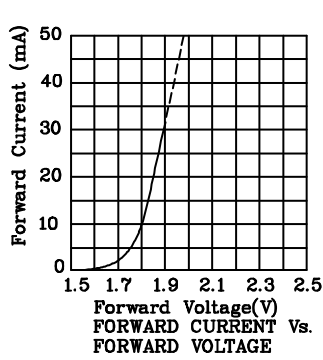
Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		MR (GaAlAs)	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	30	mA
Forward Current (peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{FS}$	155	mA
Power Dissipation	$P_T$	100	mW
Operating Temperature	$T_A$	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-40 ~ +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)	Unit
Forward Voltage (typ.) ( $I_F=20\text{mA}$ )	$V_F$	1.85	V
Forward Voltage (max.) ( $I_F=20\text{mA}$ )	$V_F$	2.5	V
Reverse Current ( $V_R=5\text{V}$ )	$I_R$	10	$\mu\text{A}$
Wavelength of Peak Emission ( $I_F=20\text{mA}$ )	$\lambda_P$	660	nm
Wavelength of Dominant Emission ( $I_F=20\text{mA}$ )	$\lambda_D$	640	nm
Spectral Line Full Width At Half-Maximum ( $I_F=20\text{mA}$ )	$\Delta\lambda$	20	nm
Capacitance ( $V_F=0\text{V}$ , $f=1\text{MHz}$ )	$C$	45	pF

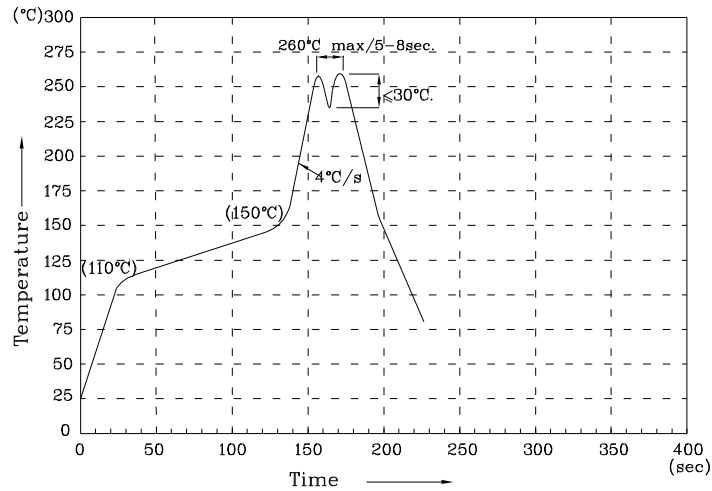
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ( $I_F=20\text{mA}$ ) mcd		Wavelength nm $\lambda_P$	Viewing Angle $2\theta_{1/2}$
				min.	typ.		
XSMR18D	Red	GaAlAs	Red Diffused	36	79	660	110°



❖ MR



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.