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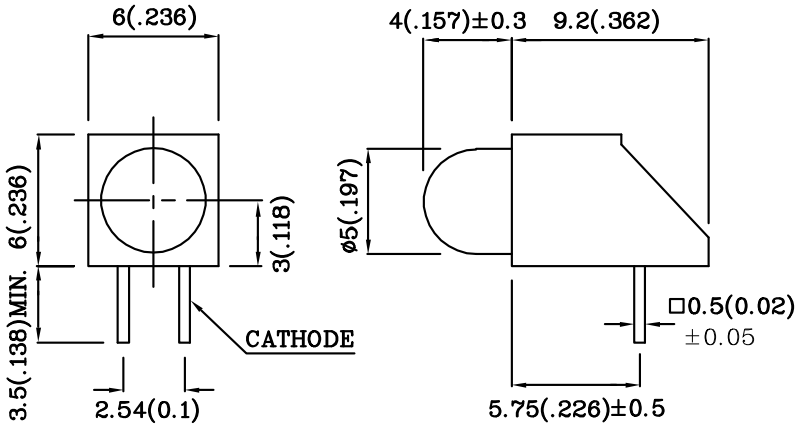
Part Number: **XVB1LMR50D**

T-1 3/4 (5mm) RIGHT ANGLE LED INDICATOR

Features

- LOW POWER CONSUMPTION.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- T-1 3/4 DIAMETER FLANGELESS PACKAGE.
- RELIABLE AND RUGGED.
- UL RATING : 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.
- RoHS COMPLIANT.



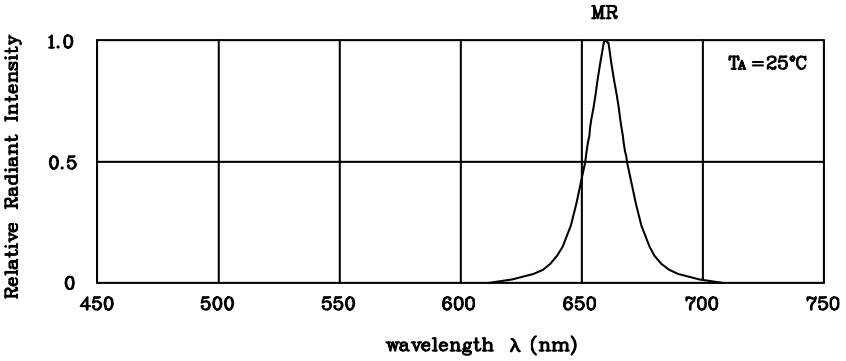
Notes:

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

Absolute Maximum Ratings (TA=25°C)		**MR (GaAlAs)**	**Unit**
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Forward Current (peak) 1/10Duty Cycle 0.1ms Pulse Width	iFS	155	mA
Power Dissipation	PT	100	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 [3mm below package base]	260°C For 5 Seconds		

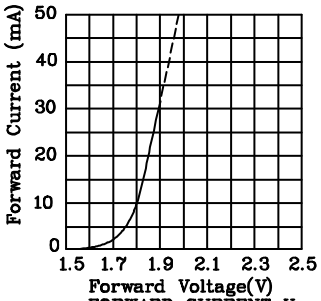
Operating Characteristics (TA=25°C)		**MR (GaAlAs)**	**Unit**
Forward Voltage (typ.) (IF=20mA)	VF	1.85	V
Forward Voltage (max.) (IF=20mA)	VF	2.5	V
Reverse Current (VR=5V)	IR	10	uA
Wavelength of Peak Emission (IF=20mA)	λ P	660	nm
Wavelength of Dominant Emission (IF=20mA)	λ D	640	nm
Spectral Line Full Width At Half-Maximum (IF=20mA)	Δλ	20	nm
Capacitance (VF=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.		
XVB1LMR50D	Red	GaAlAs	Red Diffused	380	695	660	60°

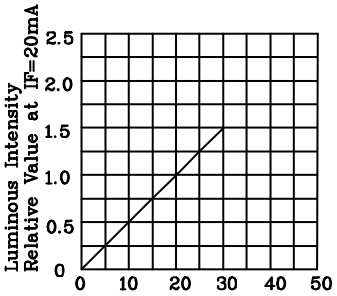


RELATIVE INTENSITY Vs. WAVELENGTH

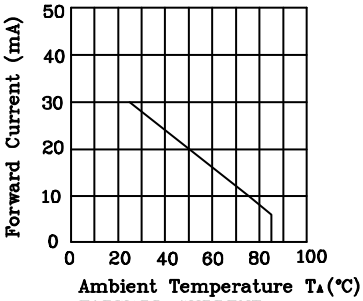
❖ **MR**



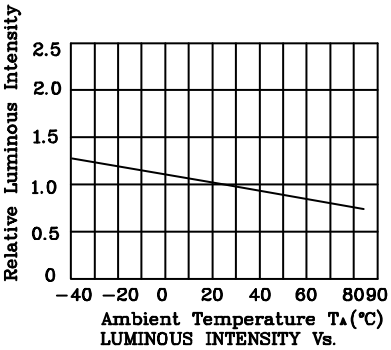
FORWARD CURRENT Vs.
FORWARD VOLTAGE



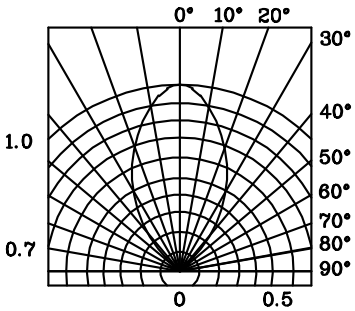
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

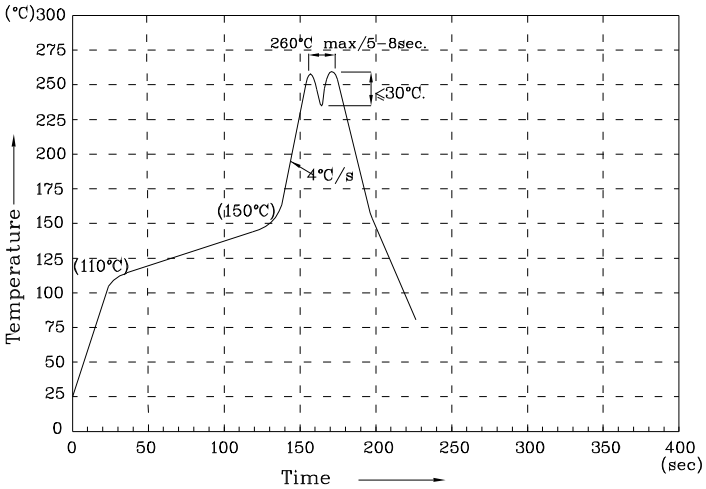


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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



NOTES:

1. Recommend the wave temperature 245℃~260℃. The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85 degree℃.
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.