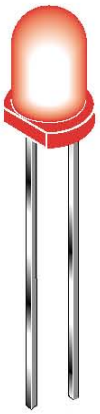
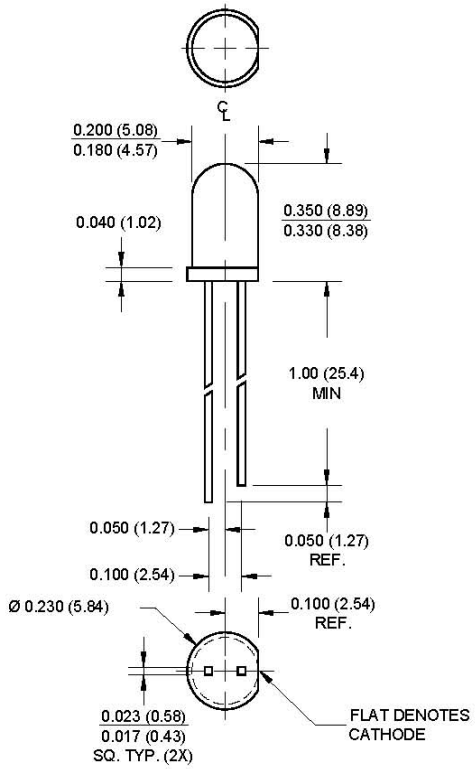
SUPER BRIGHT T-1 3/4 (5 mm)
LED LAMP - Water Clear

SUPER RED **MV800X**
MV8003 MV8004
MV8005



PACKAGE DIMENSIONS



NOTES:

1. Dimensions for all drawings are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5 mm (0.059") max.

FEATURES

- Popular T-1 3/4 package
- Super high brightness suitable for outdoor applications
- Solid state reliability
- Water clear optics
- Standard 100 mil. lead spacing

DESCRIPTION

This T-1 3/4 super bright LED has a moderate viewing angle of 20° for concentrated light output. The MV800X series is made with an AlInGaP LED that emits red light at 640 nm. It is encapsulated in a water clear epoxy lens package.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Operating Temperature	T_{OPR}	-40 to +100	°C
Storage Temperature	T_{STG}	-40 to +100	°C
Lead Soldering Time	T_{SOL}	260 for 5 sec	°C
Continuous Forward Current	I_F	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_F	160	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	85	mW

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ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	MV8003	MV8004	MV8005	Condition
Luminous Intensity (mcd)				I_F = 20 mA
Minimum	630	1000	1600	
Typical	940	1500	2400	
Forward Voltage (V)				I_F = 20 mA
Maximum	2.8	2.8	2.8	
Typical	2.1	2.1	2.1	
Peak Wavelength (nm)	640	640	640	I_F = 20 mA
Spectral Line Half Width (nm)	20	20	20	I_F = 20 mA
Viewing Angle (°)	20	20	20	I_F = 20 mA

TYPICAL PERFORMANCE CURVES

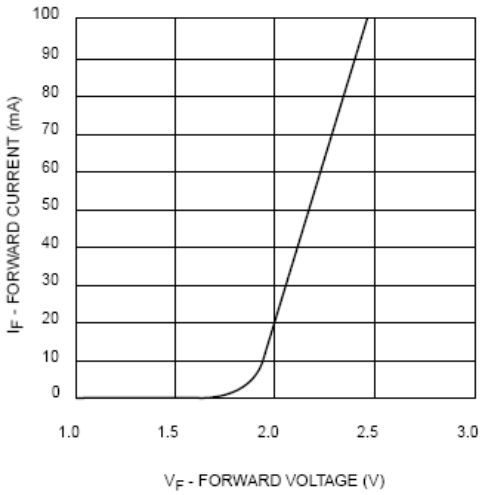

Fig. 1 Forward Current vs. Forward Voltage

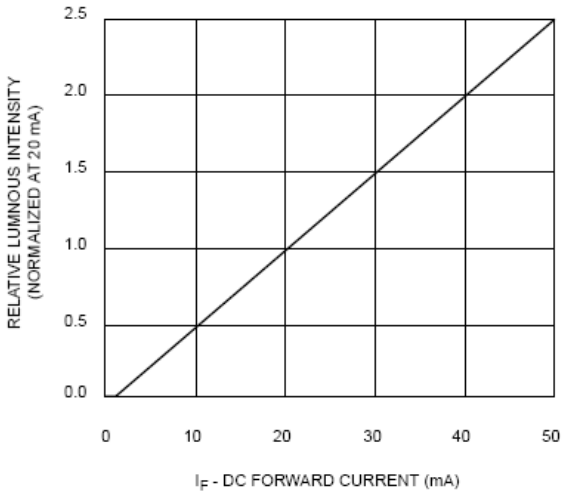

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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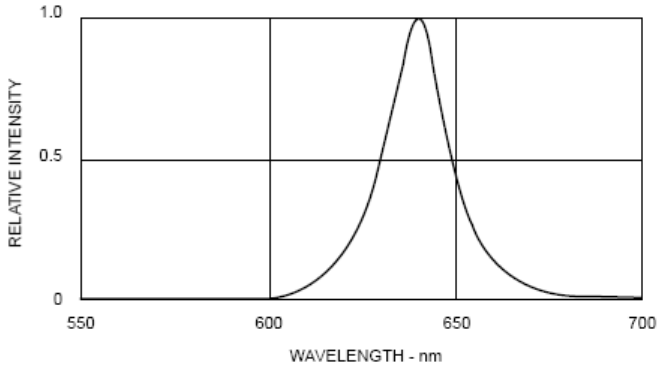
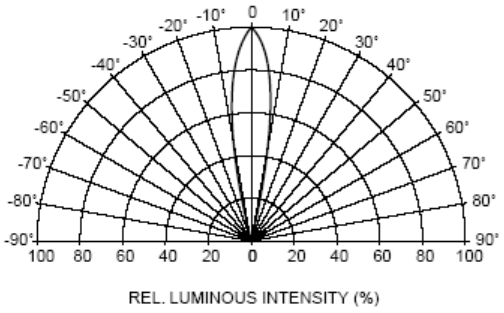


WAVELENGTH – nm

Fig. 3 Relative Intensity vs Peak Wavelength



EL. LUMINOUS INTENSITY (%)

Fig. 4 Radiation Diagram

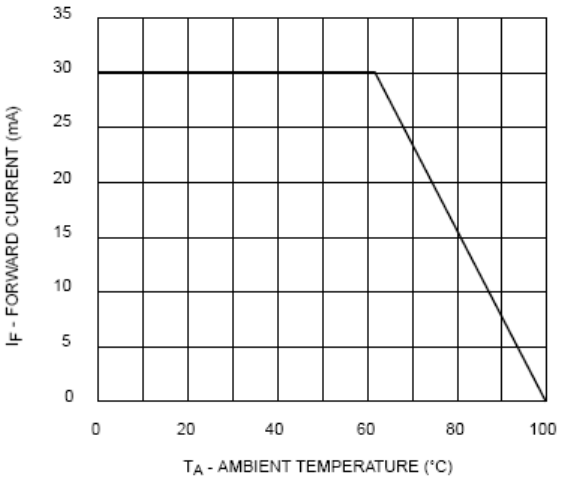


Fig. 5 Current Derating Curve

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