

SUPER BRIGHT T-1 3/4 (5 mm)

LED LAMP - Water Clear

0.200 (5.08) 0.350 (8.89) 0.330 (8.38) 0.0023 (0.58) 0.017 (0.43) 0.000 (2.54) NOM 0.000 (2.54) NOM FLAT DENOTES CATHODE

SUPER RED MV8111 MV8112 MV8113 MV8114 **MV811X**

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



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.

DESCRIPTION

This T-1 3/4 super bright LED has a narrow viewing angle of 12° for concentrated light output. The MV811X series is made with an AlGaAs LED that emits red light at 660 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	l _F	30	mA		
Peak Forward Current		200	mA		
(f = 1.0 KHz, Duty Factor = 1/10)	l _F				
Reverse Voltage	V _R	5	V		
Power Dissipation	P _D	100	mW		



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Part Number	MV8111	MV8112	MV8113	MV8114	Condition
Luminous Intensity (mcd)					$I_F = 20 \text{ mA}$
Minimum	250	630	1000	1600	
Typical	370	940	1500	2400	
Forward Voltage (V)					I _F = 20 mA
Maximum	2.4	2.4	2.4	2.4	
Typical	1.7	1.7	1.7	1.7	
Peak Wavelength (nm)	660	660	660	660	I _F = 20 mA
Spectral Line Half Width (nm)	20	20	20	20	$I_F = 20 \text{ m/s}$
Viewing Angle (°)	15	15	15	15	I _F = 20 mA

TYPICAL PERFORMANCE CURVES

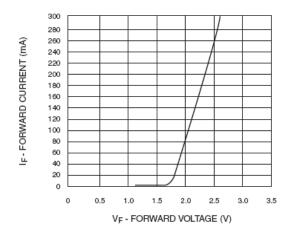


Fig. 1 Forward Current vs. Forward Voltage

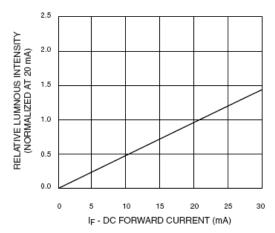


Fig. 2 Relative Luminous Intensity vs. DC Forward Current



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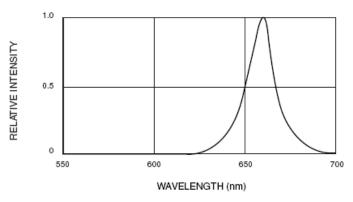


Fig. 3 Relative Intensity vs. Peak Wavelength

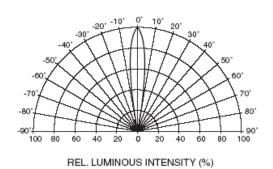


Fig. 4 Radiation Diagram

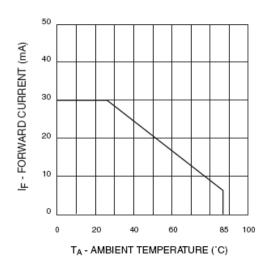


Fig. 5 Current Derating Curve



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