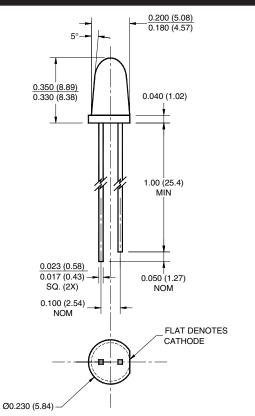


**LED LAMP - Water Clear** 

### 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.

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



#### **DESCRIPTION**

This T-1 3/4 super bright LED has a narrow viewing angle of  $12^{\circ}$  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 <sub>A</sub> = 25°C unless otherwise specified)						
Parameter	Symbol	Rating	Unit			
Operating Temperature	T <sub>OPR</sub>	-40 to +100	°C			
Storage Temperature	T <sub>STG</sub>	-40 to +100	°C			
Lead Soldering Time	T <sub>SOL</sub>	260 for 5 sec	°C			
Continuous Forward Current	I <sub>F</sub>	30	mA			
Peak Forward Current		200	m A			
(f = 1.0 KHz, Duty Factor = 1/10)	l <sub>F</sub>	200	mA			
Reverse Voltage	V <sub>R</sub>	5	V			
Power Dissipation	P <sub>D</sub>	100	mW			



**LED LAMP - Water Clear** 

SUPER RED MV8111 MV8112 MV8113 MV8114 **MV811X** 

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)						
Part Number	MV8111	MV8112	MV8113	MV8114	Condition	
Luminous Intensity (mcd)					$I_F = 20mA$	
Minimum	250	630	1000	1600		
Typical	370	940	1500	2400		
Forward Voltage (V)					$I_F = 20mA$	
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	$I_F = 20mA$	
Spectral Line Half Width (nm)	20	20	20	20	$I_F = 20mA$	
Viewing Angle (°)	12	12	12	12	$I_F = 20mA$	

### TYPICAL PERFORMANCE CURVES

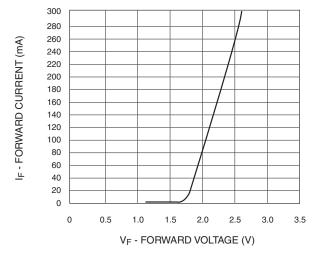


Fig. 1 Forward Current vs. Forward Voltage

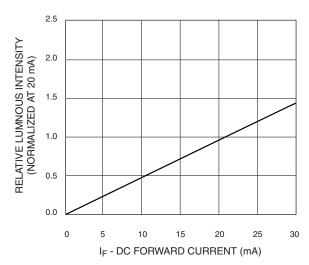


Fig. 2 Relative Luminous Intensity vs.
DC Forward Current



**LED LAMP - Water Clear** 

SUPER RED MV8111 MV8112 MV8113 MV8114 **MV811X** 

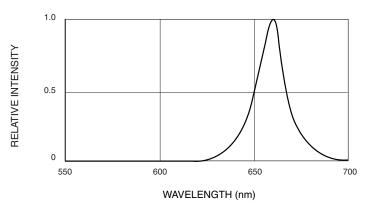


Fig. 3 Relative Intensity vs. Peak Wavelength

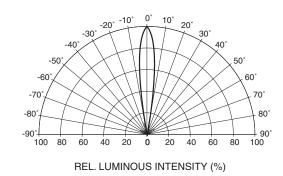


Fig. 4 Radiation Diagram

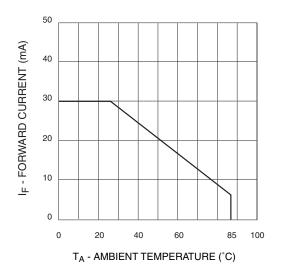


Fig. 5 Current Derating Curve



**LED LAMP - Water Clear** 

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- A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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