

## **PACKAGE DIMENSIONS** 0.200 (5.08) 0.180 (4.57) 0.350 (8.89) 0.040 (1.02) 0.330 (8.38) 1.00 (25.4) MIN 0.050 (1.27) -0.050 (1.27) RFF 0.100 (2.54) -0.100 (2.54) Ø 0.230 (5.84) FLAT DENOTES 0.023 (0.58) 0.017 (0.43) SQ. TYP. (2X) CATHODE

SUPER ORANGE MV870X MV8703 MV8704 MV8705 MV8706

### **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 moderate viewing angle of 20° for concentrated light output. It is made with an AllnGaP LED that emits orange light at 620 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>	40	mA		
Peak Forward Current		160	m A		
(f = 1.0 KHz, Duty Factor = 1/10)	l le	100	mA		
Reverse Voltage	V <sub>R</sub>	5	V		
Power Dissipation	P <sub>D</sub>	100	mW		



SUPER ORANGE MV8703 MV8704 MV8705 MV8706 **MV870X** 

Part Number	MV8703	MV8704	MV8705	MV8706	Condition
Luminous Intensity (mcd)					I <sub>F</sub> = 20 mA
Minimum	630	1000	1600	2500	
Typical	940	1500	2400	3500	
Forward Voltage (V)					I <sub>F</sub> = 20 mA
Maximum	2.8	2.8	2.8	2.8	
Typical	2.1	2.1	2.1	2.1	
Wavelength (nm)					I <sub>F</sub> = 20 mA
Peak		620			
Dominant		615			
Spectral Line Half Width (nm)		20			I <sub>F</sub> = 20 mA
Viewing Angle (°)		20			I <sub>F</sub> = 20 mA

## **TYPICAL PERFORMANCE CURVES**

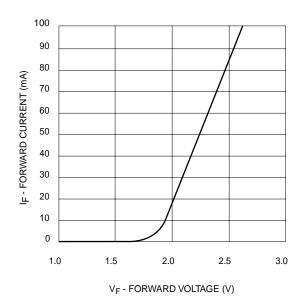


Fig. 1 Forward Current vs. Forward Voltage

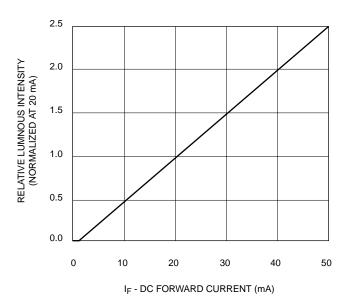


Fig. 2 Relative Luminous Intensity vs. DC Forward Current



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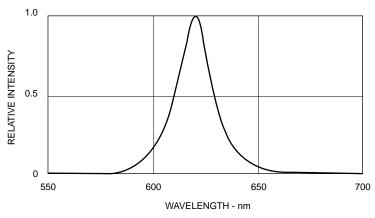


Fig. 3 Relative Intensity vs Peak Wavelength

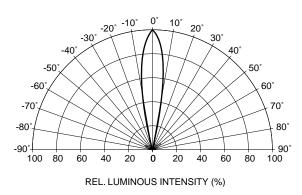


Fig. 4 Radiation Diagram

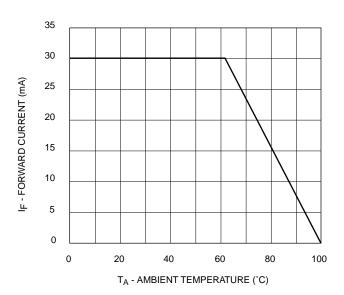


Fig. 5 Current Derating Curve



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