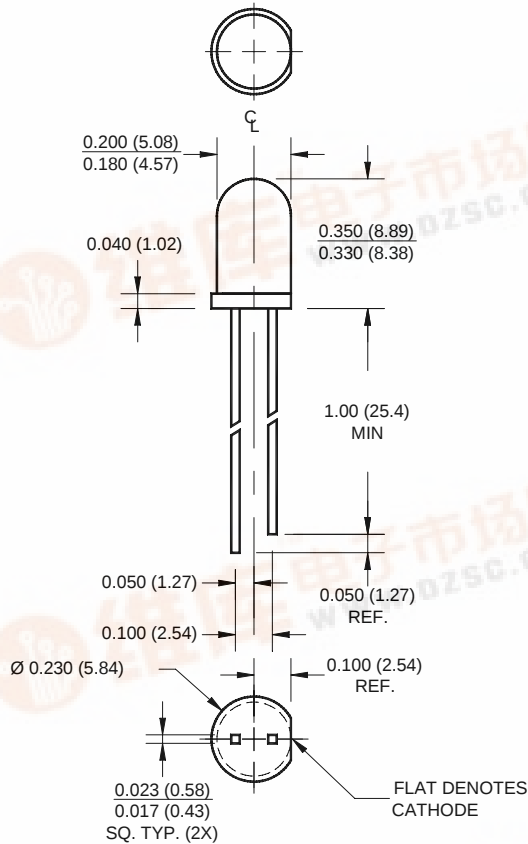


FAIRCHILD
SEMICONDUCTOR™

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

PACKAGE DIMENSIONS



NOTES:

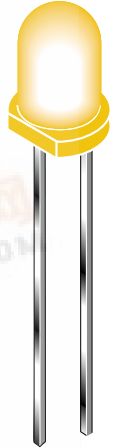
1. Dimensions for all drawings are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5 mm (0.059") max.

SUPER ORANGE
MV8703 MV8704
MV8705 MV8706

MV870X

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. It is made with an AlInGaP LED that emits orange light at 620 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	40	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	100	mW

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ELECTRICAL / OPTICAL CHARACTERISTICS (T_A = 25°C)

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

TYPICAL PERFORMANCE CURVES

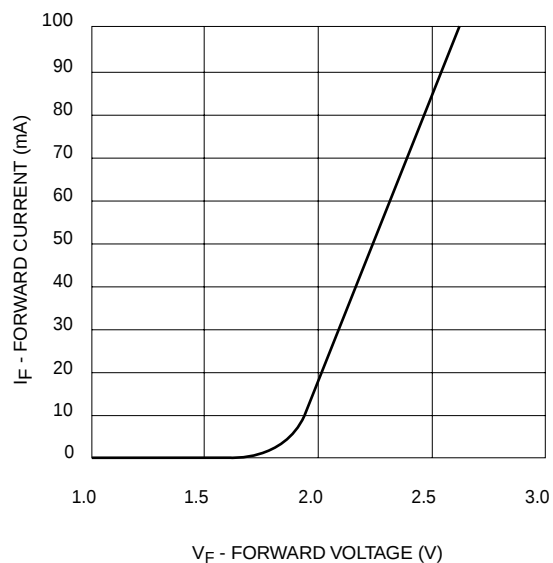


Fig. 1 Forward Current vs. Forward Voltage

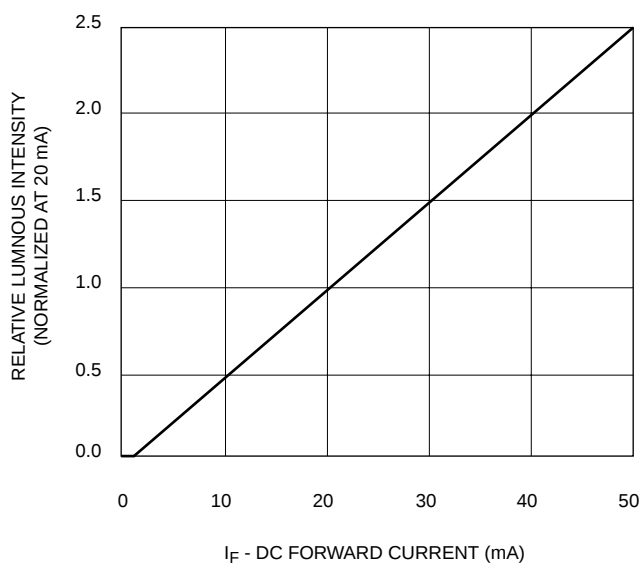


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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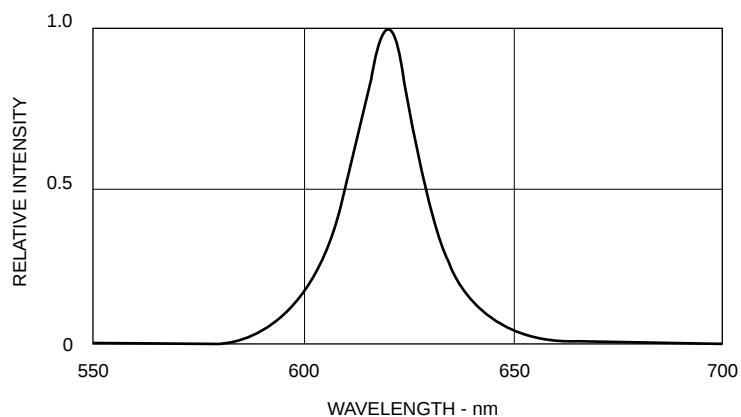


Fig. 3 Relative Intensity vs Peak Wavelength

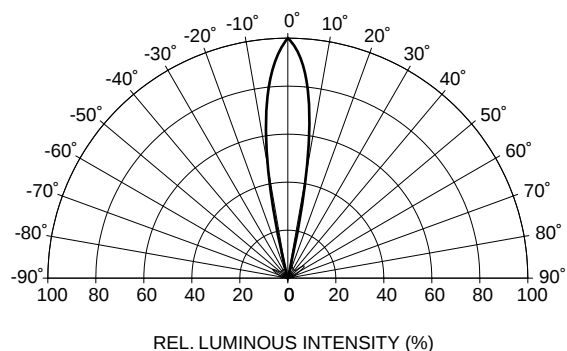


Fig. 4 Radiation Diagram

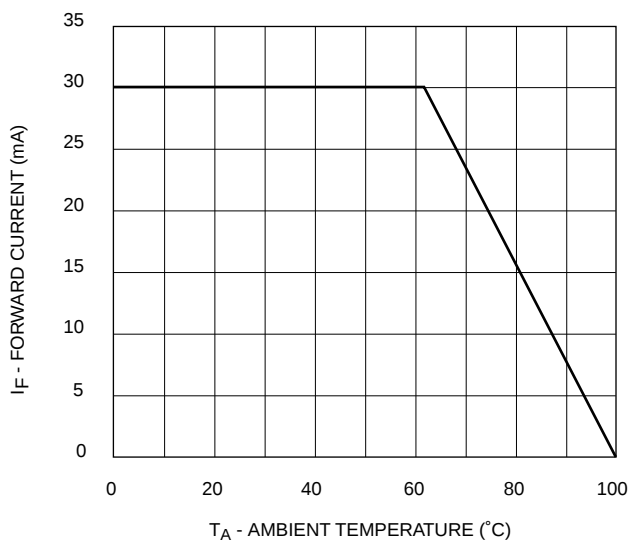


Fig. 5 Current Derating Curve



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

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2. 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.