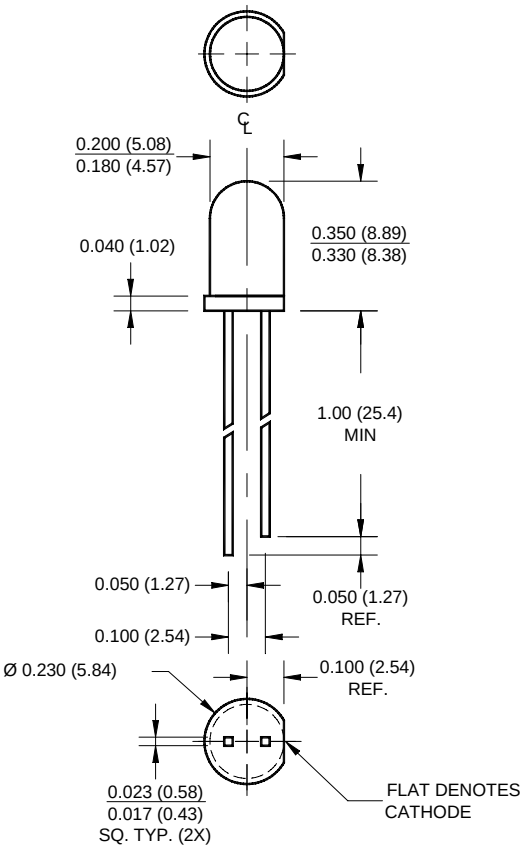
FAIRCHILD
SEMICONDUCTOR™

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

SUPER ORANGE-RED MV883X
MV8832 MV8833

PACKAGE DIMENSIONS

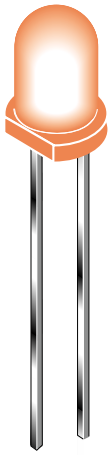


NOTES:

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 30° for concentrated light output. It is made with an AlInGaP LED that emits red light at 630 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	200	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	MV8832	MV8833	Condition
Luminous Intensity (mcd)			I_F = 20 mA
Minimum	630	1000	
Typical	940	1500	
Forward Voltage (V)			I_F = 20 mA
Maximum	2.8	2.8	
Typical	2.1	2.1	
Wavelength (nm)			I_F = 20 mA
Peak	630		
Dominant	623		
Spectral Line Half Width (nm)	20		I_F = 20 mA
Viewing Angle (°)	30		I_F = 20 mA

TYPICAL PERFORMANCE CURVES

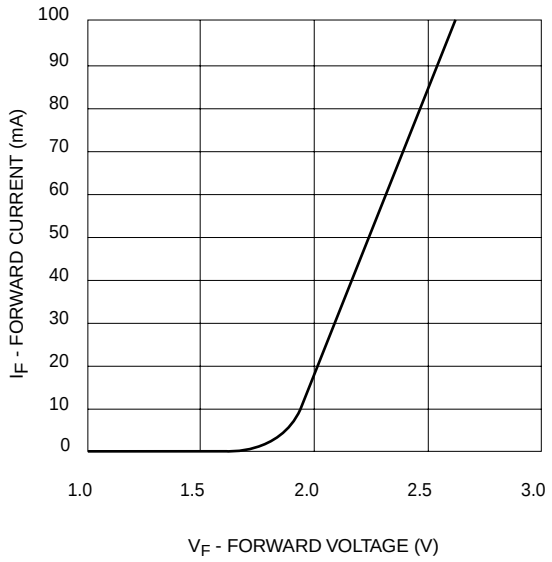

Fig. 1 Forward Current vs. Forward Voltage

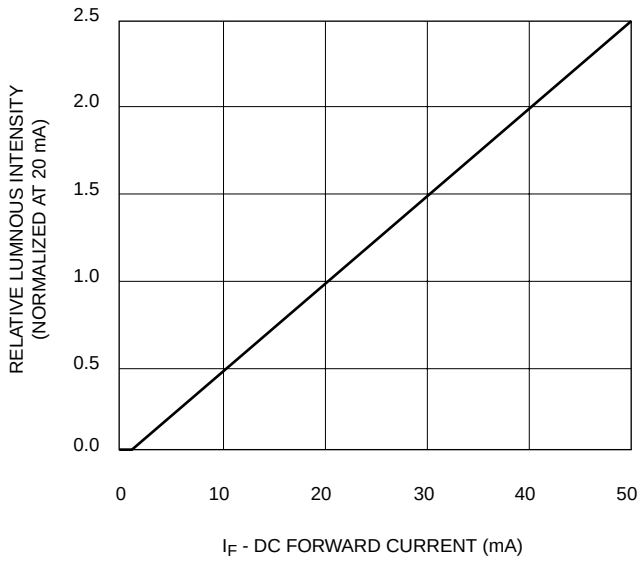

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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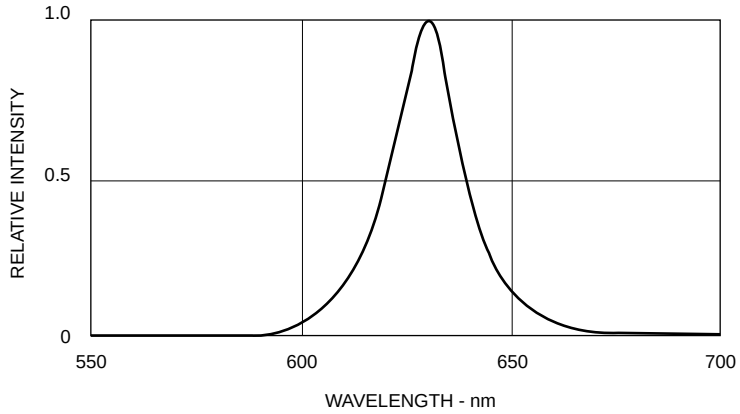

Fig. 3 Relative Intensity vs Peak Wavelength

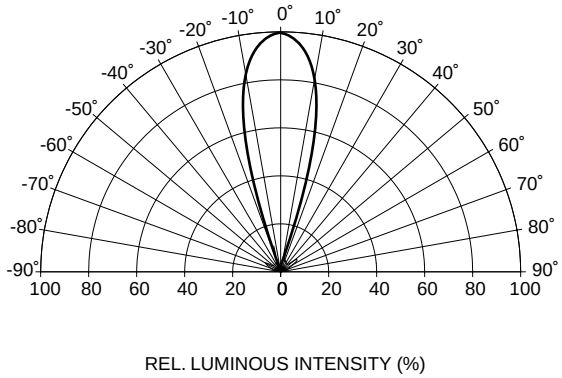

Fig. 4 Radiation Diagram

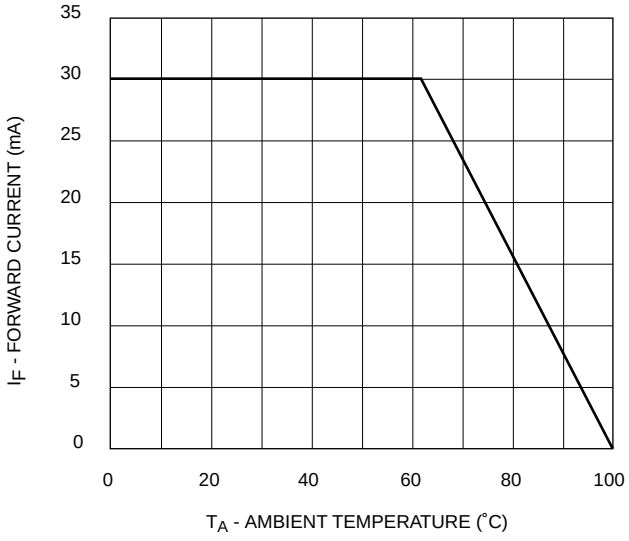

Fig. 5 Current Derating Curve

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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.