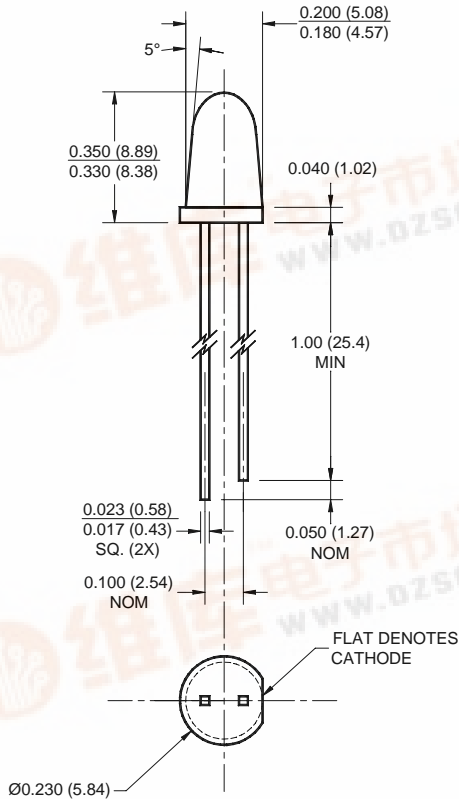


SUPER BRIGHT T-1 3/4 (5 mm)

LED LAMP - Water Clear

PACKAGE DIMENSIONS



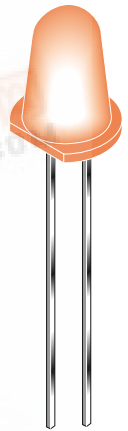
NOTES:

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-RED MV881X
MV8813 MV8814
MV8815 MV8816

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 12° 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

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

SUPER ORANGE-RED MV881X
MV8813 MV8814
MV8815 MV8816

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	MV8813	MV8814	MV8815	MV8816	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	
Peak Wavelength (nm)					I _F = 20 mA
Peak	630	630	630	630	
Dominant	623	623	623	623	
Spectral Line Half Width (nm)	20	20	20	20	I _F = 20 mA
Viewing Angle (°)	12	12	12	12	I _F = 20 mA

TYPICAL PERFORMANCE CURVES

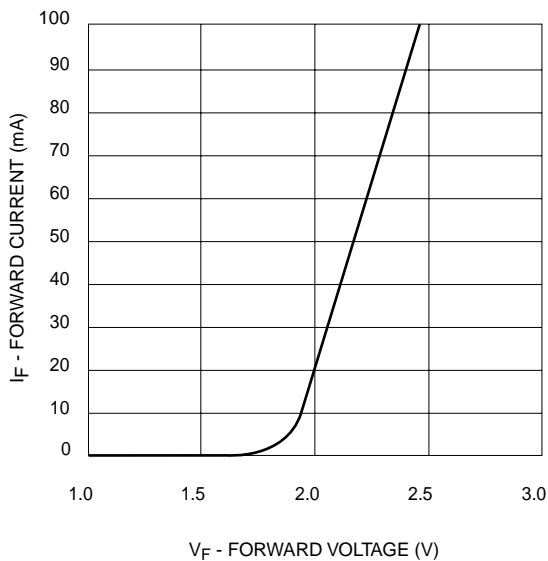


Fig. 1 Forward Current vs. Forward Voltage

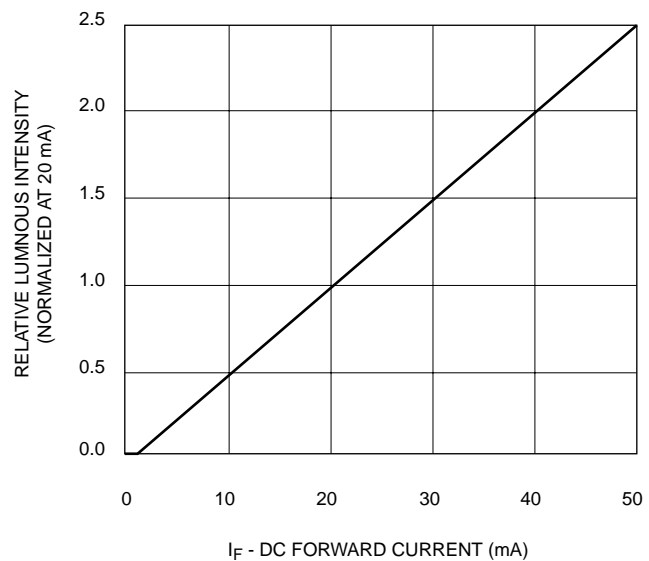


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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

SUPER ORANGE-RED MV881X
MV8813 MV8814
MV8815 MV8816

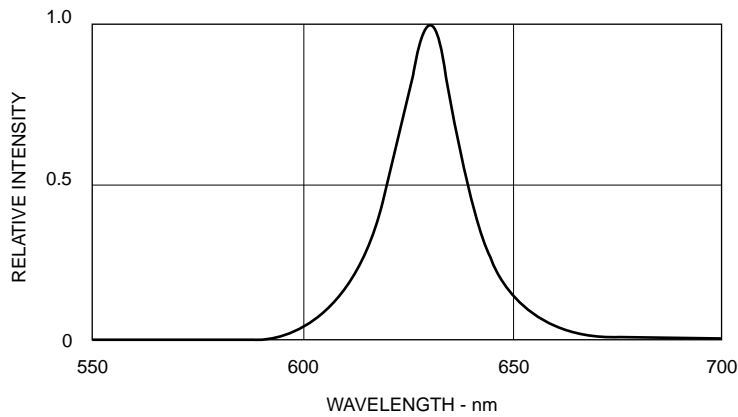
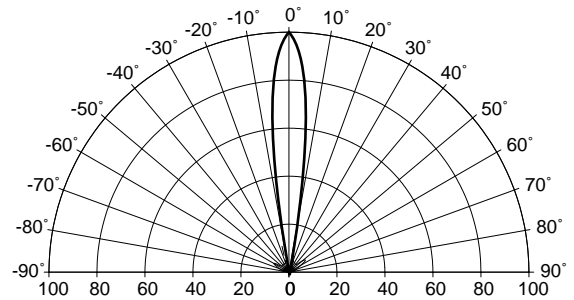


Fig. 3 Relative Intensity vs Peak Wavelength



REL. LUMINOUS INTENSITY (%)

Fig. 4 Radiation Diagram

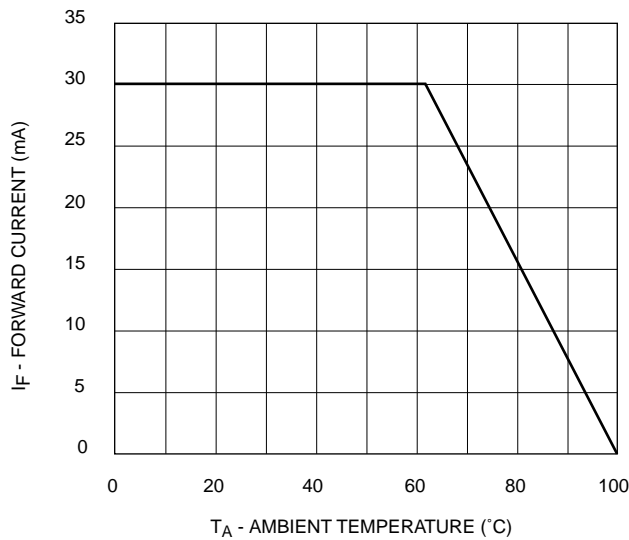


Fig. 5 Current Derating Curve



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.