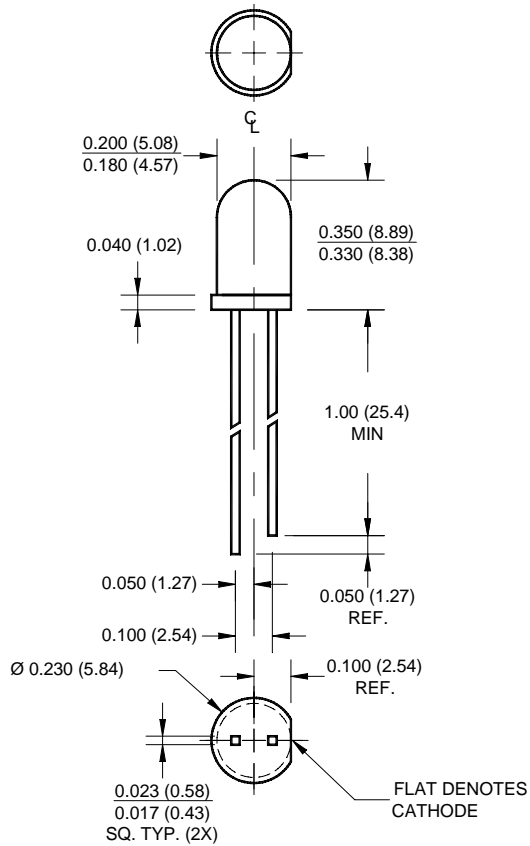


SUPER BRIGHT T-1 3/4 (5 mm) LED LAMP - Water Clear

PACKAGE DIMENSIONS



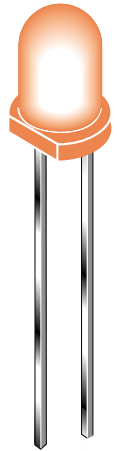
NOTES:

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 MV880X
MV8803 MV8804
MV8805 MV8806

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 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 ORANGE-RED MV880X
MV8803 MV8804
MV8805 MV8806

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A = 25°C)

| Part Number | MV8803 | MV8804 | MV8805 | MV8806 | 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 | | 630 | | | |
| Dominant | | 623 | | | |
| Spectral Line Half Width (nm) | | 20 | | | I _F = 20 mA |
| Viewing Angle (°) | | 20 | | | I _F = 20 mA |

TYPICAL PERFORMANCE CURVES

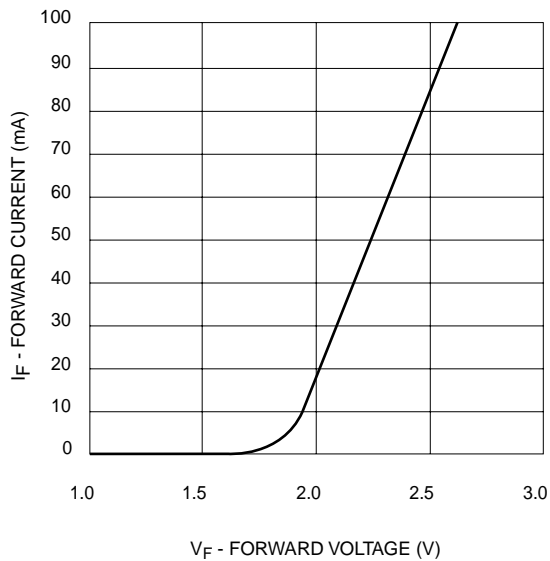


Fig. 1 Forward Current vs. Forward Voltage

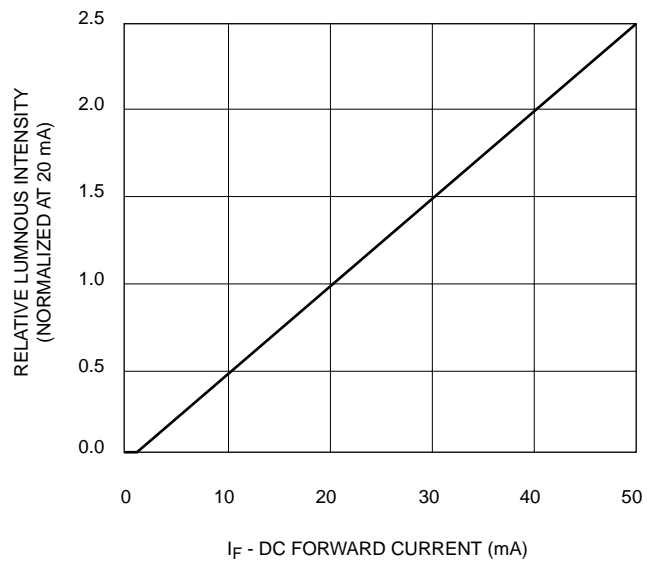


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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

SUPER ORANGE-RED MV880X
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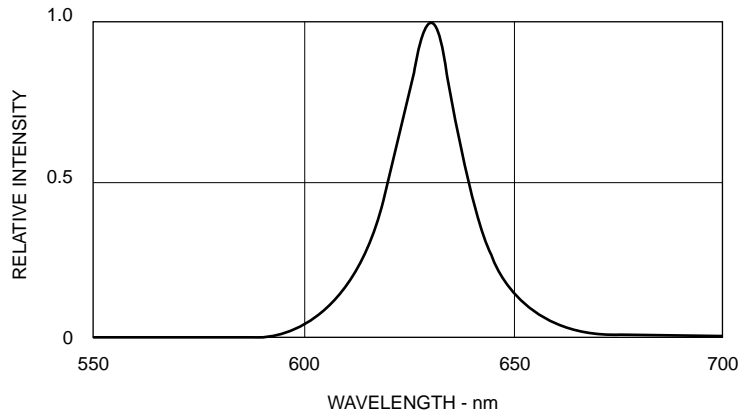
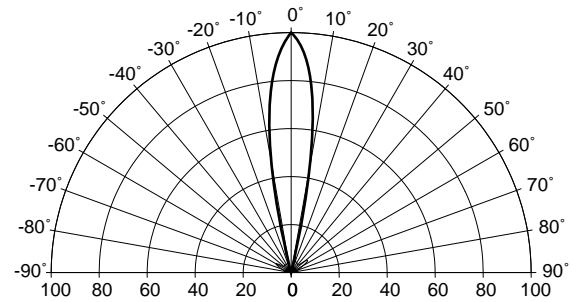


Fig. 3 Relative Intensity vs Peak Wavelength



REL. LUMINOUS INTENSITY (%)

Fig. 4 Radiation Diagram

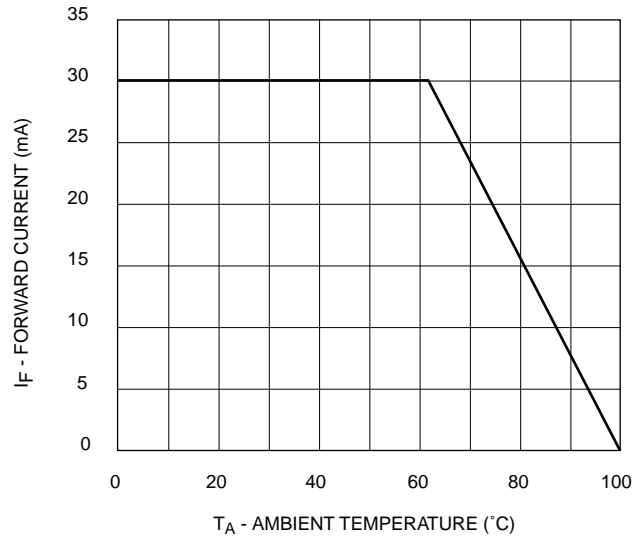


Fig. 5 Current Derating Curve

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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.