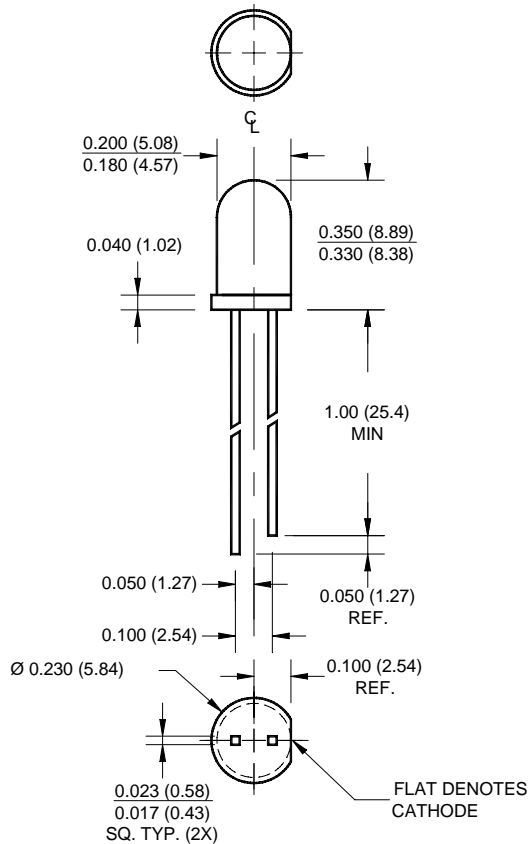


SUPER BRIGHT T-1 3/4 (5 mm) LED LAMP - Water Clear

PACKAGE DIMENSIONS



NOTES:

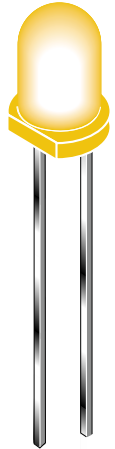
1. Dimensions for all drawings are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5 mm (0.059") max.

SUPER ORANGE
MV8741 MV8742

MV874X

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 45° 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 ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Rating | Unit |
|--|-----------|---------------|------------------|
| Operating Temperature | T_{OPR} | -40 to +100 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -40 to +100 | $^\circ\text{C}$ |
| Lead Soldering Time | T_{SOL} | 260 for 5 sec | $^\circ\text{C}$ |
| 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 |

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

SUPER ORANGE
MV8741 MV8742

MV874X

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

| Part Number | MV8741 | MV8742 | Condition |
|-------------------------------|--------|--------|------------------------|
| Luminous Intensity (mcd) | | | I _F = 20 mA |
| Minimum | 250 | 400 | |
| Typical | 370 | 600 | |
| Forward Voltage (V) | | | I _F = 20 mA |
| Maximum | 2.8 | 2.8 | |
| Typical | 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

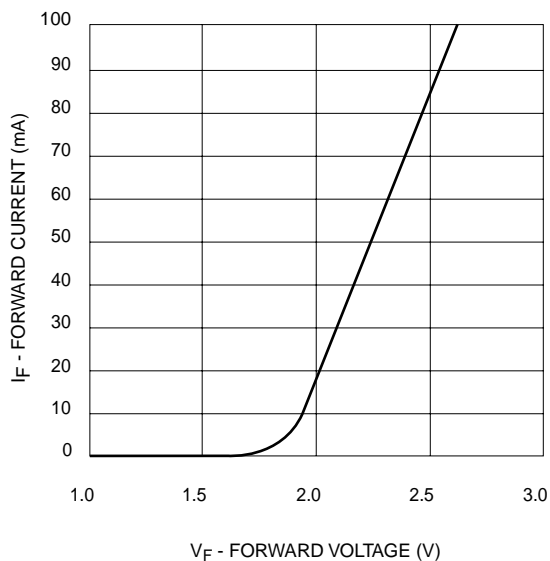


Fig. 1 Forward Current vs. Forward Voltage

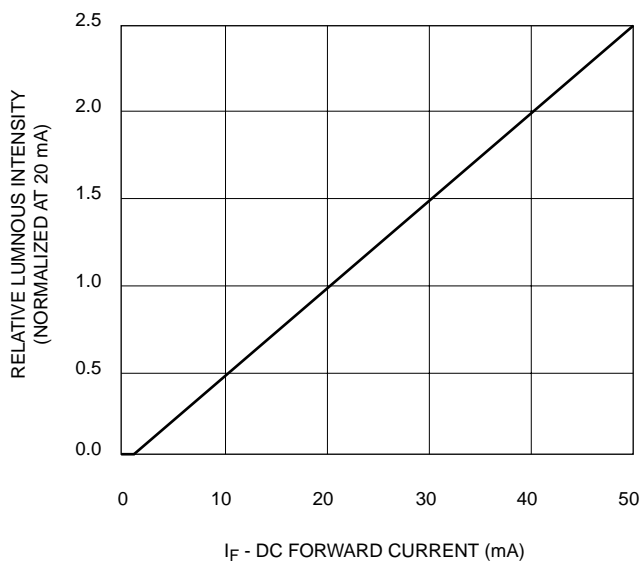


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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

| | |
|----------------------|---------------|
| SUPER ORANGE | MV874X |
| MV8741 MV8742 | |

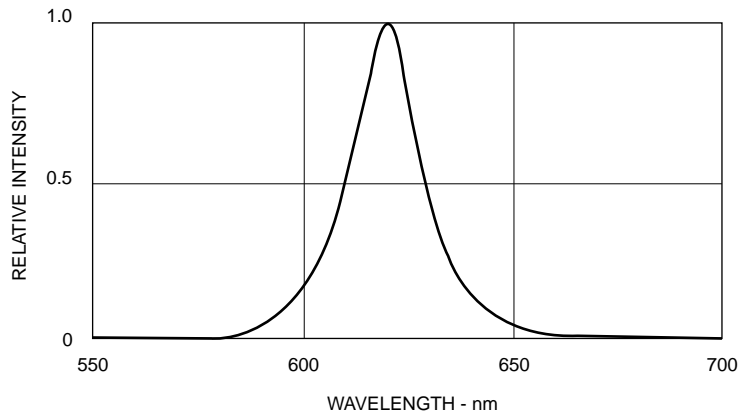


Fig. 3 Relative Intensity vs Peak Wavelength

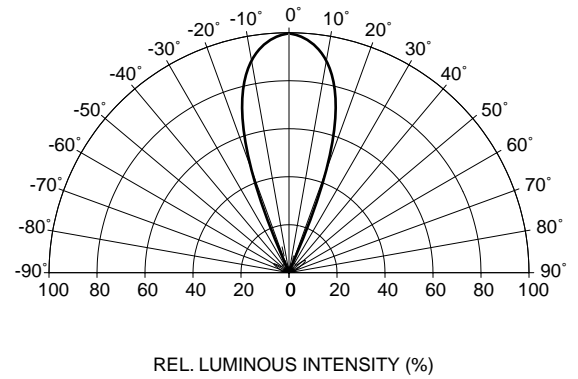


Fig. 4 Radiation Diagram

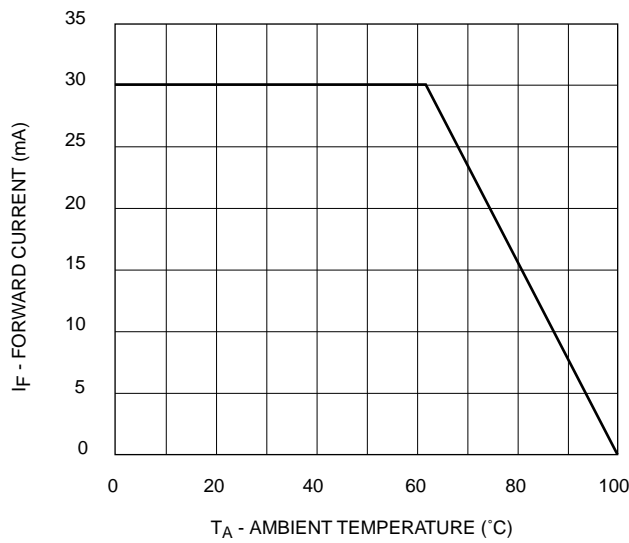


Fig. 5 Current Derating Curve