

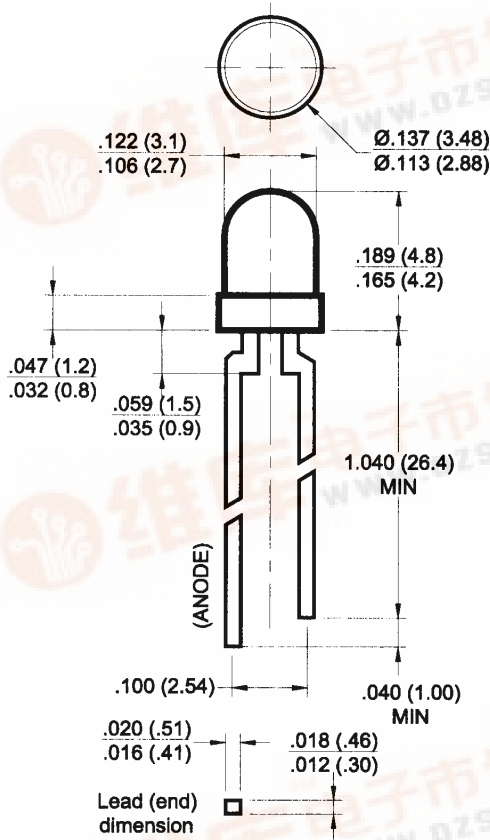
FAIRCHILD

SEMICONDUCTOR™

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

AllnGaP Orange **MV7742** **MV7743** **MV7744**

PACKAGE DIMENSIONS



DESCRIPTION

These T-1 LEDs have a wide viewing angle of 60° and are encapsulated in an epoxy package with a water clear lens. They are constructed with AllnGaP LEDs and emit a peak wavelength of 620 nm.

FEATURES

- Popular T-1 package.
- Low drive current.
- Solid State reliability.
- Super high brightness suitable for outdoor applications.
- Water clear optics.
- Standard 100 mil. Lead spacing.

Note: 1) All dimensions are in inches (mm).
 2) Lead spacing is measured where the leads emerge from the package.
 3) Protruded resin under the flange is 1.5mm (0.059") max.

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

DC forward current (I _F)	30 mA
Peak forward current (I _F) @ f = 1.0 KHz, Duty factor = 1/10	160 mA
Power dissipation (P _d)	85 mW
Reversed voltage (V _R) I _R = 10 µA	5 V
Operating temperature range	-40°C to +100°C
Storage temperature range	-40°C to +100°C
Lead soldering time	5 secs @ 260°C

ELECTRO-OPTICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Part Number:	<u>MV7742</u>	<u>MV7743</u>	<u>MV7744</u>	<u>Test Condition</u>
Luminous intensity (mcd)				I _F = 20 mA
Minimum	100	160	250	
Typical	150	240	375	
Forward voltage (V _F)				I _F = 20 mA
Typical	2.1	2.1	2.1	
Maximum	2.8	2.8	2.8	
Peak Wavelength	620	620	620	I _F = 20 mA
Spectral line half width (nm)	25	25	25	I _F = 20 mA
Viewing angle	60	60	60	I _F = 20 mA

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (T_A = 25°C)

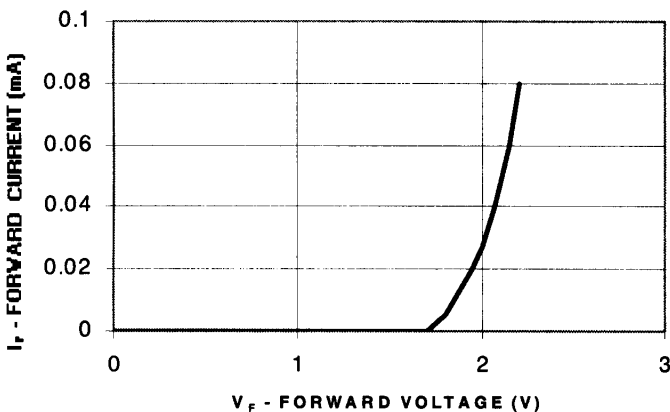


Fig 1. Forward Current vs. Forward Voltage

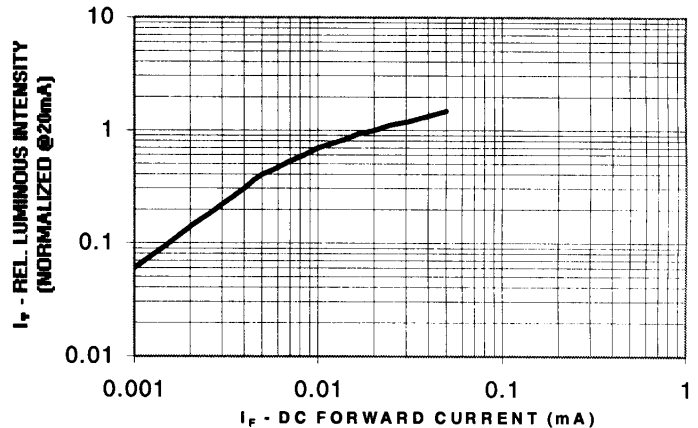


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

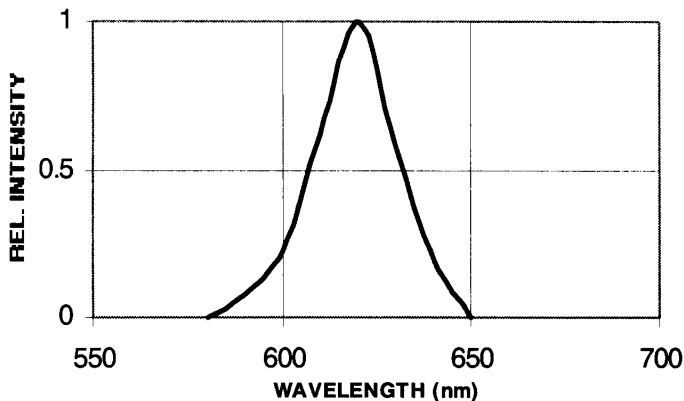


Fig 3. Rel. Intensity vs. Wavelength

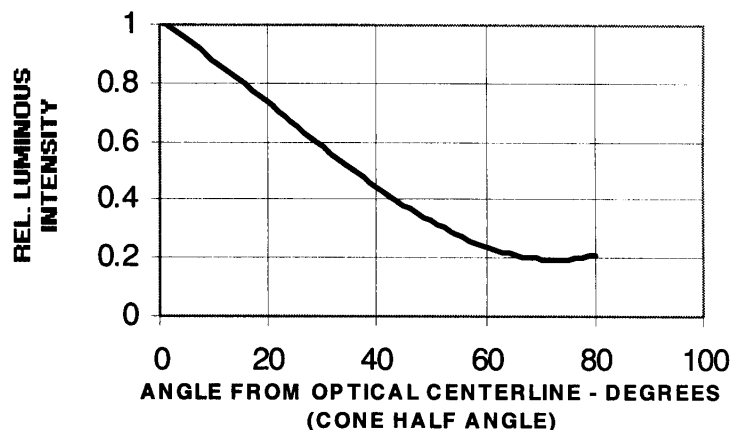


Fig 4. Rel. Luminous Intensity vs. Angular Displacement

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