

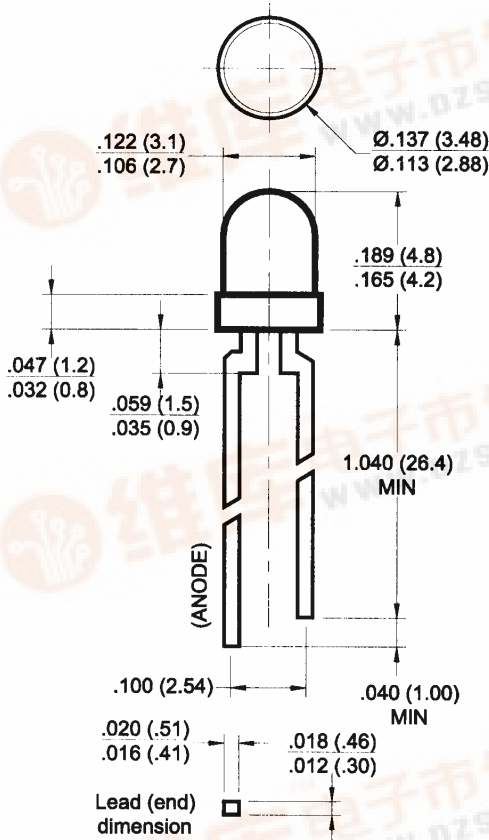
# FAIRCHILD

## SEMICONDUCTOR™

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

Green MV7441 MV7442

### PACKAGE DIMENSIONS



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.

### 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 GaP LEDs and emit a peak wavelength of 570 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.

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

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

### ELECTRO-OPTICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

Part Number:	<u>MV7441</u>	<u>MV7442</u>	<u>Test Condition</u>
<b>Luminous intensity (mcd)</b>			<b>I<sub>F</sub> = 20 mA</b>
Minimum	100	160	
Typical	150	240	
<b>Forward voltage (V<sub>F</sub>)</b>			<b>I<sub>F</sub> = 20 mA</b>
Typical	2.1	2.0	
Maximum	2.8	2.8	
<b>Peak Wavelength</b>	570	570	<b>I<sub>F</sub> = 20 mA</b>
<b>Spectral line half width (nm)</b>	30	30	<b>I<sub>F</sub> = 20 mA</b>
<b>Viewing angle</b>	60	60	<b>I<sub>F</sub> = 20 mA</b>

### TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (T<sub>A</sub> = 25°C)

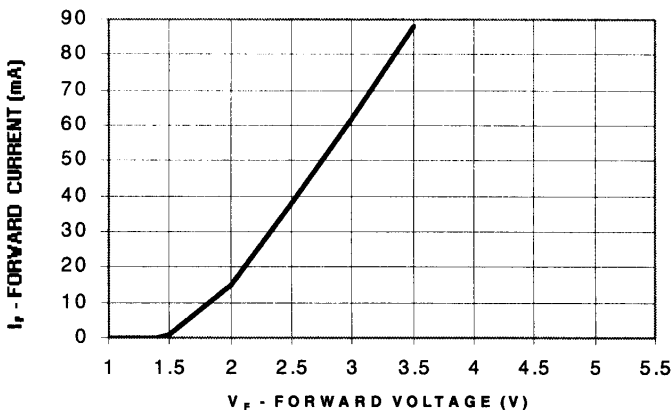


Fig 1. Forward Current vs. Forward Voltage

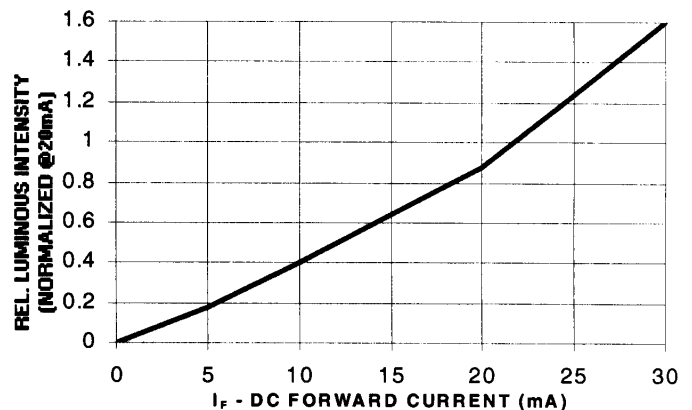


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

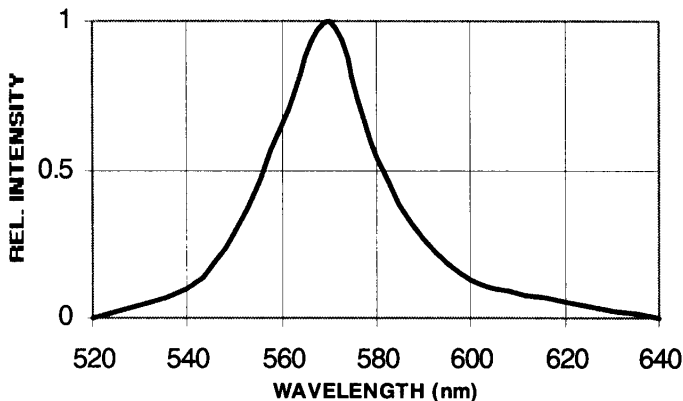


Fig 3. Rel. Intensity vs. Wavelength

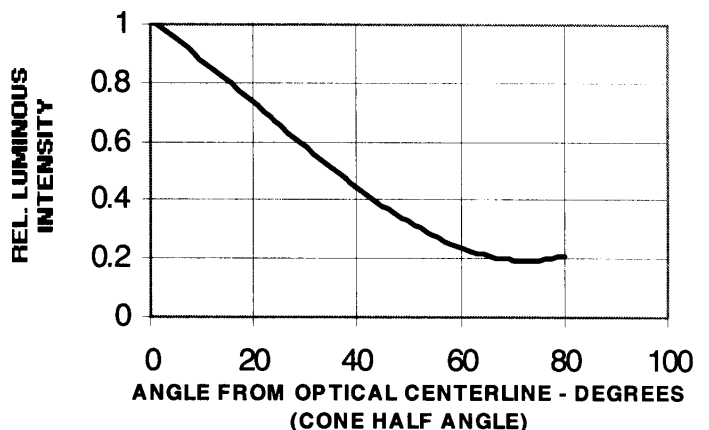


Fig 4. Rel. Luminous Intensity vs. Angular Displacement

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