

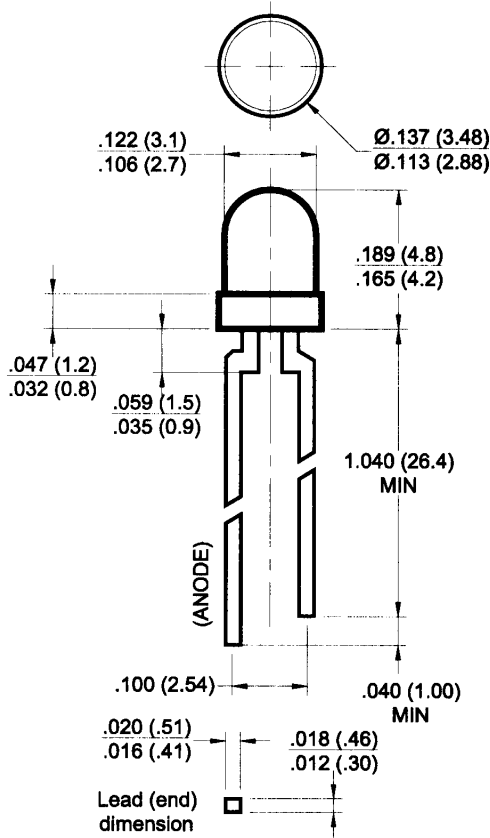
AllnGaP Orange

MV7742

MV7743

MV7744

### 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 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.

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

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

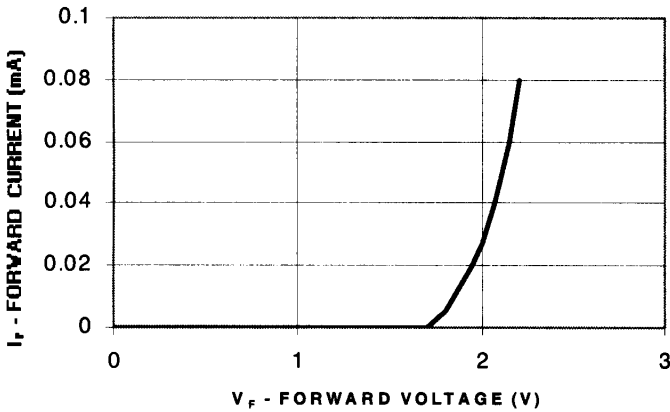


Fig 1. Forward Current vs. Forward Voltage

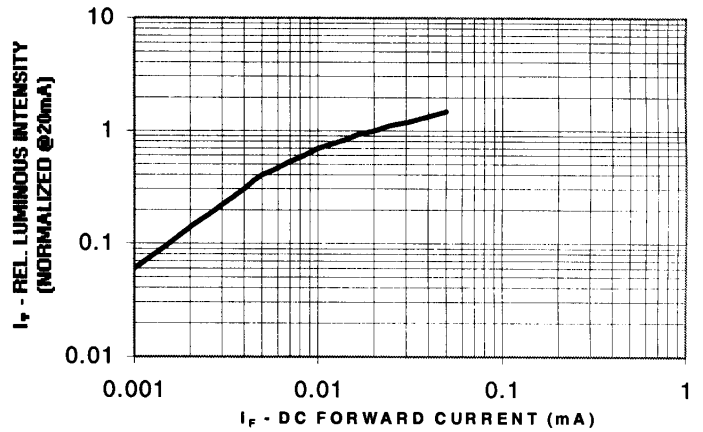


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

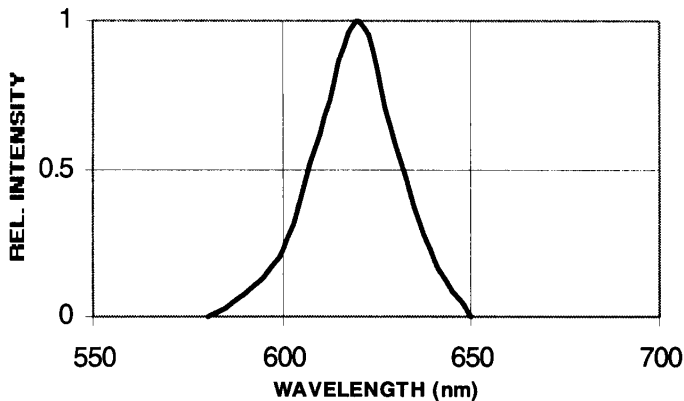


Fig 3. Rel. Intensity vs. Wavelength

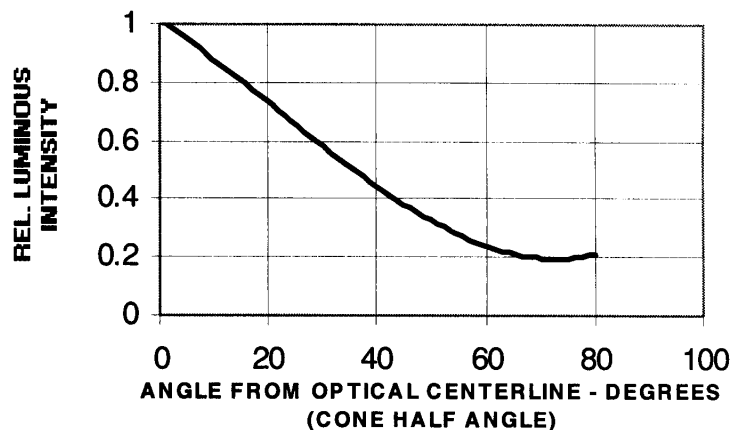


Fig 4. Rel. Luminous Intensity vs. Angular Displacement

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