

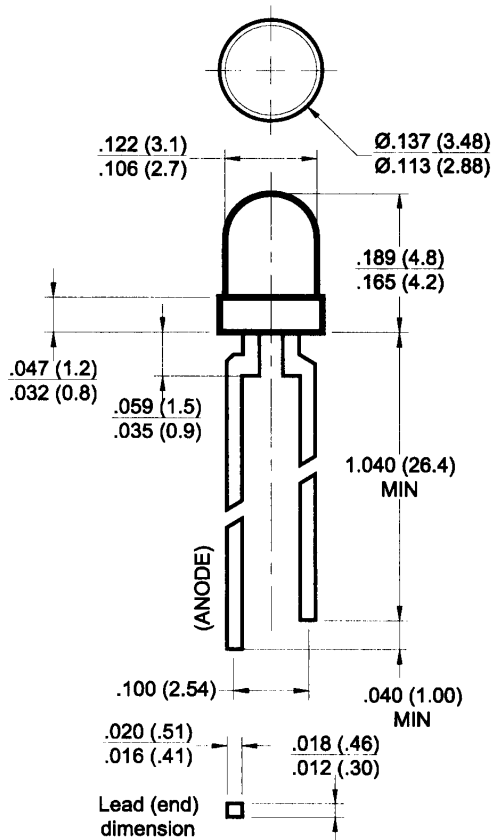
AllnGaP Red

MV7042

MV7043

MV7044

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

Part Number:	<u>MV7042</u>	<u>MV7043</u>	<u>MV7044</u>	Test Condition
Luminous intensity (mcd)				$I_F = 20\text{ mA}$
Minimum	100	160	250	
Typical	150	240	375	
Forward voltage ( $V_F$ )				$I_F = 20\text{ mA}$
Typical	2.1	2.1	2.1	
Maximum	2.8	2.8	2.8	
Peak Wavelength	645	645	645	$I_F = 20\text{ mA}$
Spectral line half width (nm)	20	20	20	$I_F = 20\text{ mA}$
Viewing angle	60	60	60	$I_F = 20\text{ mA}$

**TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES** ( $T_A = 25^\circ\text{C}$ )

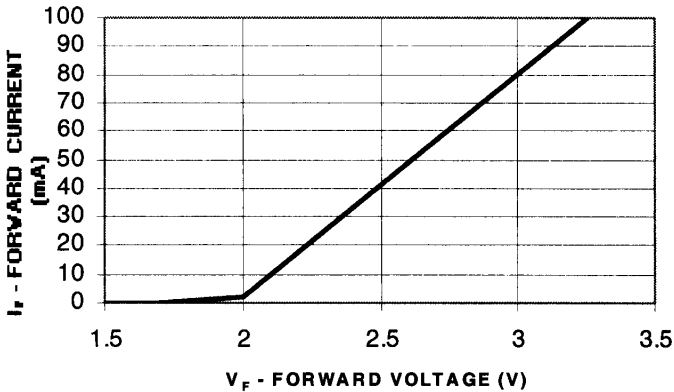


Fig 1. Forward Current vs. Forward Voltage

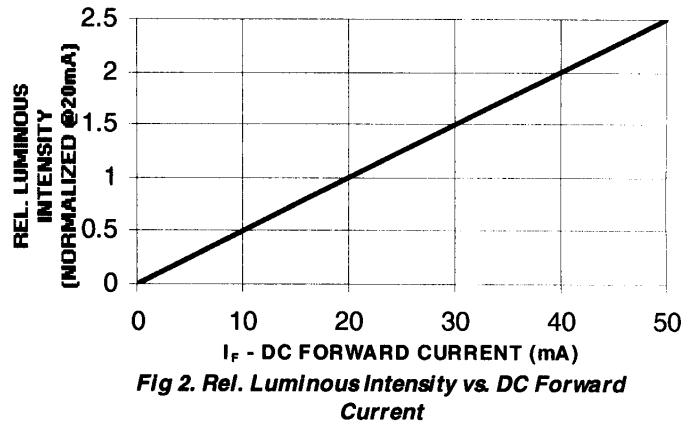


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

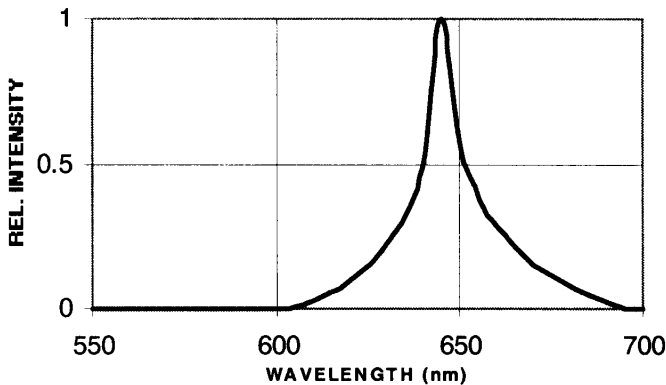


Fig 3. Rel. Intensity vs. Wavelength

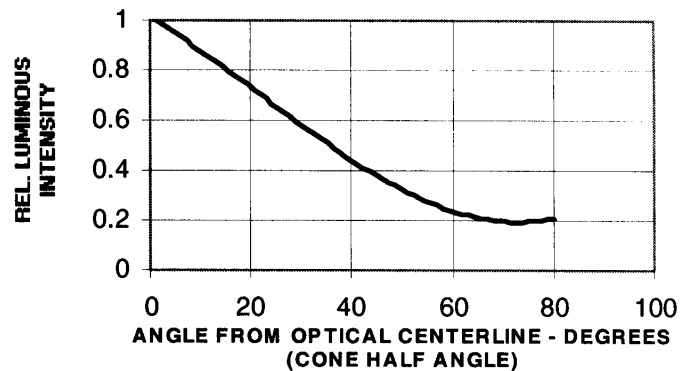


Fig 4. Rel. Luminous Intensity vs. Angular Displacement

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