



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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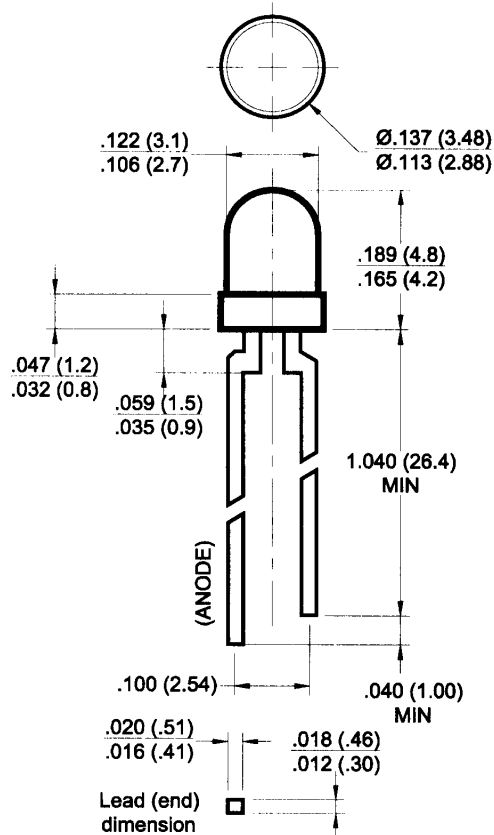
AlInGaP Orange Red

MV7842

MV7843

MV7844

### 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 AlInGaP LEDs and emit a peak wavelength of 630 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>MV7842</u>	<u>MV7843</u>	<u>MV7844</u>	<u>Test Condition</u>
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	630	630	630	I <sub>F</sub> = 20 mA
Spectral line half width (nm)	35	35	35	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)

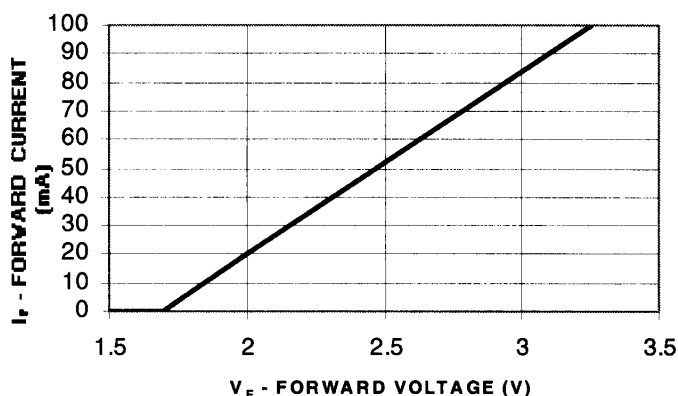


Fig 1. Forward Current vs. Forward Voltage

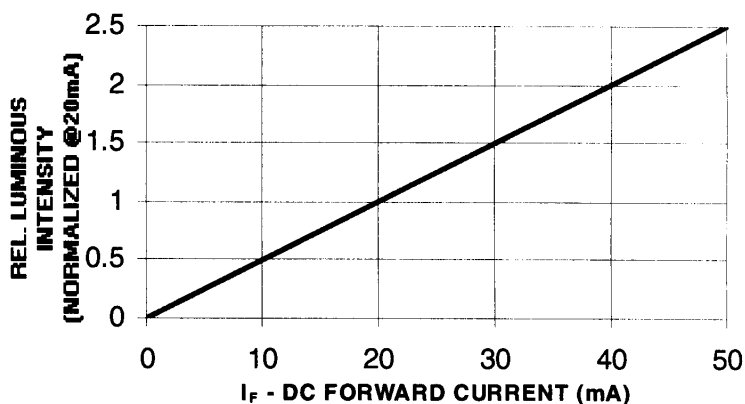


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

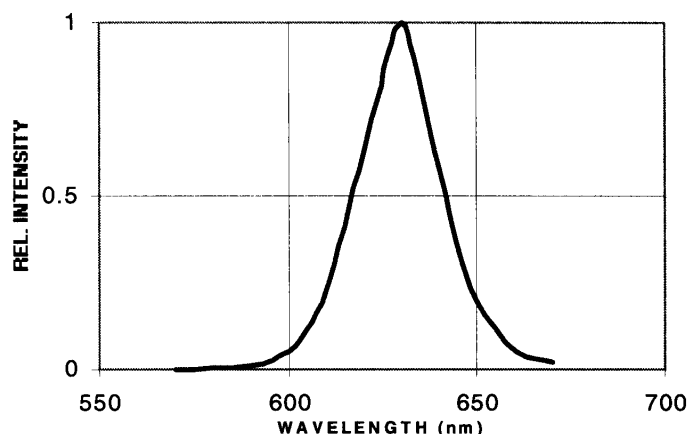


Fig 3. Rel. Intensity vs. Wavelength

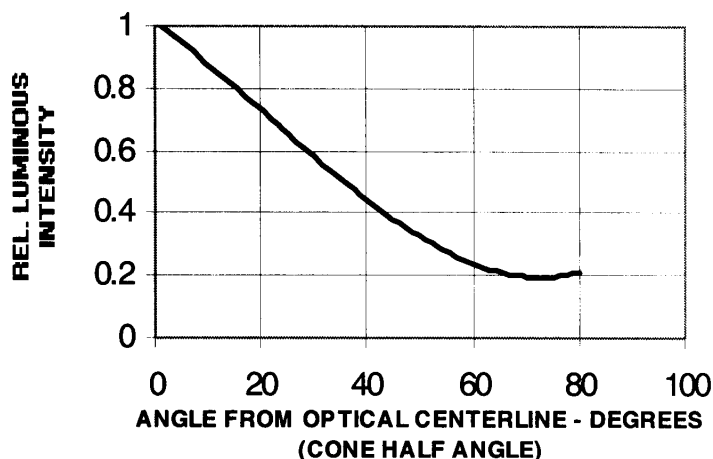


Fig 4. Rel. Luminous Intensity vs. Angular Displacement



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