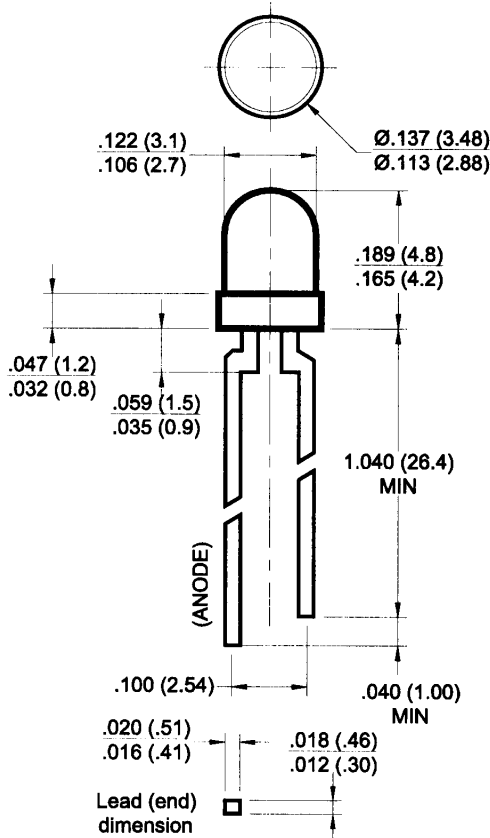


Green MV7441 MV7442

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_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 + 85°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>MV7441</u> | <u>MV7442</u> | <u>Test Condition</u> |
|-----------------------------------|---------------|---------------|------------------------|
| Luminous intensity (mcd) | | | I _F = 20 mA |
| Minimum | 100 | 160 | |
| Typical | 150 | 240 | |
| Forward voltage (V _F) | | | I _F = 20 mA |
| Typical | 2.1 | 2.0 | |
| Maximum | 2.8 | 2.8 | |
| Peak Wavelength | 570 | 570 | I _F = 20 mA |
| Spectral line half width (nm) | 30 | 30 | I _F = 20 mA |
| Viewing angle | 60 | 60 | I _F = 20 mA |

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

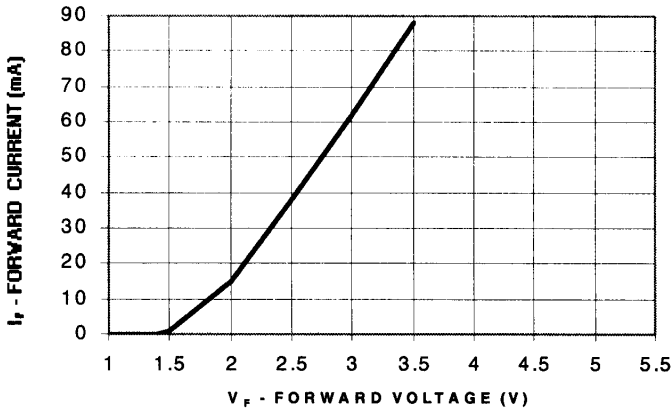


Fig 1. Forward Current vs. Forward Voltage

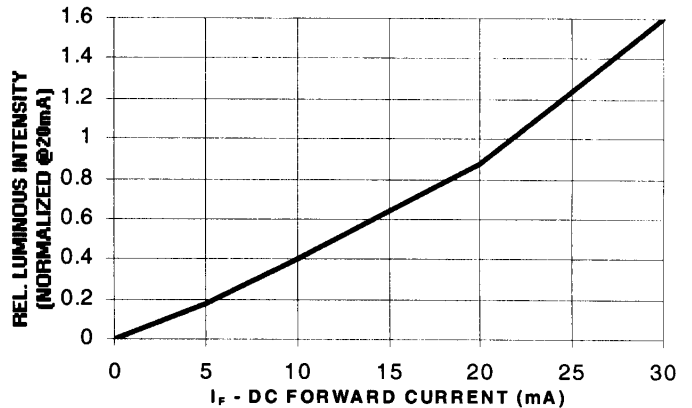


Fig 2. Rel. Luminous Intensity vs. DC Forward Current

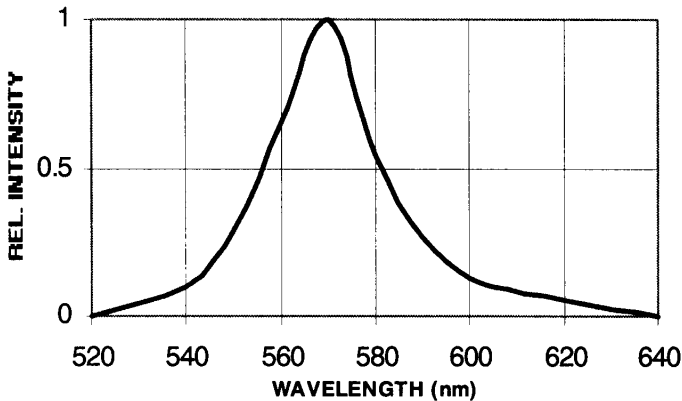


Fig 3. Rel. Intensity vs. Wavelength

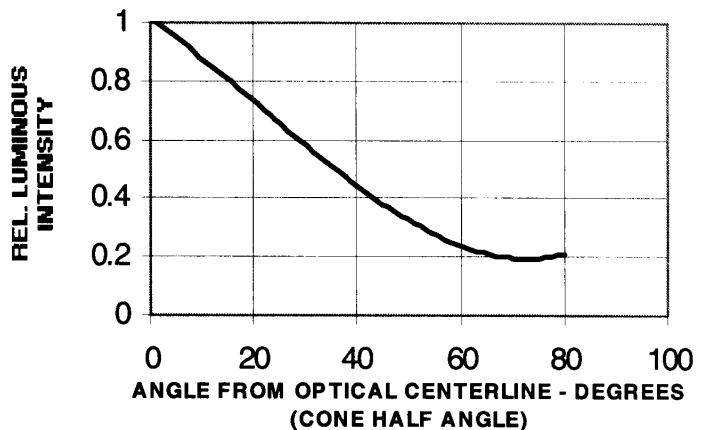


Fig 4. Rel. Luminous Intensity vs. Angular Displacement

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.