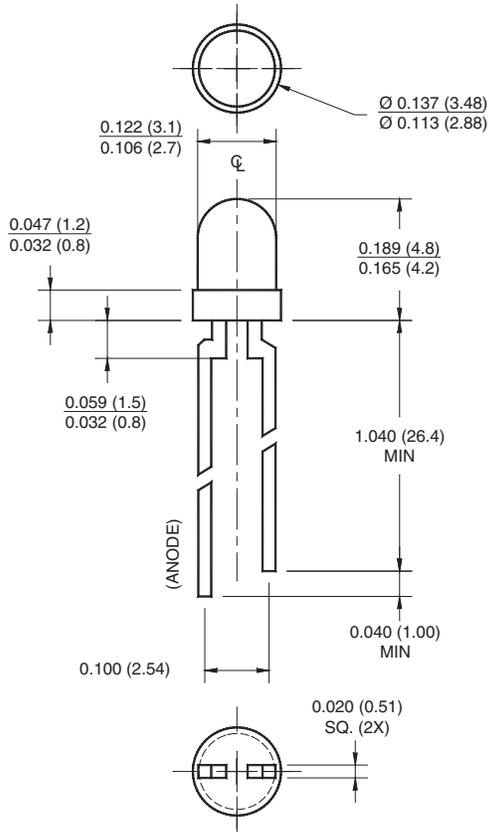


Green

MV7442

PACKAGE DIMENSIONS



NOTES:

1. Dimensions for all drawings 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

This T-100 green LED has a moderate viewing angle of 45°. It is encapsulated in an epoxy package with a water clear lens. The green diode chip is constructed with GaP technology and emits a dominant wavelength of 570nm.

FEATURES

- Popular T-1 package
- Solid state reliability
- Water clear optics
- Standard 100 mil. lead spacing

Green

MV7442

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Rating | Unit |
|-----------------------------------------------------------------------|-----------|---------------|------------------|
| Operating Temperature | T_{OPR} | -40 to +85 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -40 to +100 | $^\circ\text{C}$ |
| Lead Soldering Time | T_{SOL} | 260 for 5 sec | $^\circ\text{C}$ |
| Continuous Forward Current | I_F | 30 | mA |
| Peak Forward Current ($f = 1.0 \text{ KHz}$, Duty Factor = 1/10) | I_{FM} | 120 | mA |
| Reverse Voltage ($I_R = 10 \mu\text{A}$) | V_R | 5 | V |
| Power Dissipation | P_D | 85 | mW |

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

| Part Number | MV7442 | Condition |
|-------------------------------|--------|-----------------------|
| Luminous Intensity (mcd) | | |
| Minimum | 80 | $I_F = 20 \text{ mA}$ |
| Typical | 120 | |
| Forward Voltage (V) | | |
| Maximum | 2.8 | $I_F = 20 \text{ mA}$ |
| Typical | 2.1 | |
| Wavelength (nm) | | |
| Peak | 565 | $I_F = 20 \text{ mA}$ |
| Dominant | 570 | |
| Spectral Line Half Width (nm) | 30 | $I_F = 20 \text{ mA}$ |
| Viewing Angle ($^\circ$) | 45 | $I_F = 20 \text{ mA}$ |

Green

MV7442

TYPICAL PERFORMANCE CURVES

Fig.1 Forward Current vs. Forward Voltage

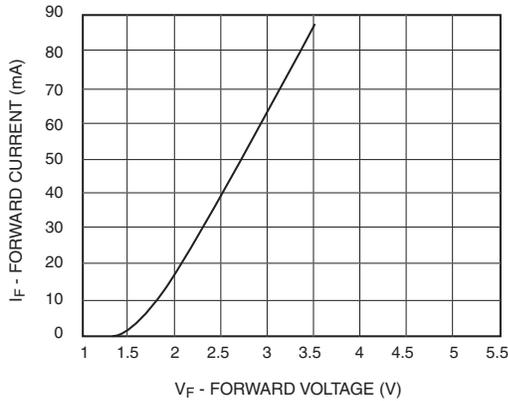


Fig.2 Relative Luminous Intensity vs. DC Forward Current

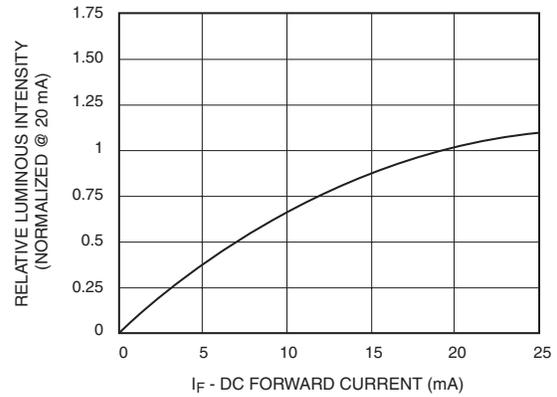


Fig.3 Relative Intensity vs. Peak Wavelength

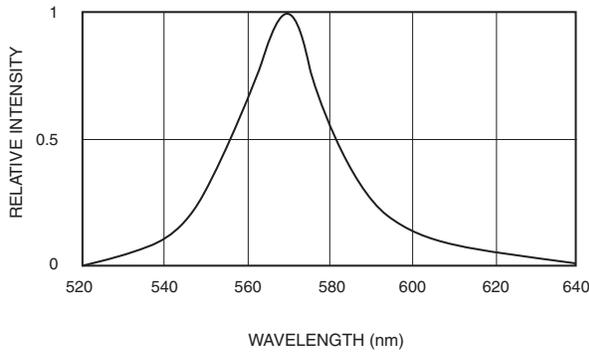


Fig. 4 Radiation Diagram

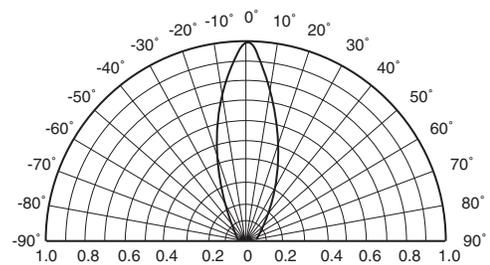
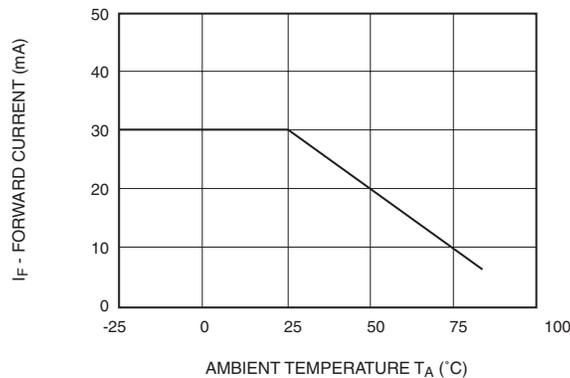


Fig.5 Current Derating Curve



Green

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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.