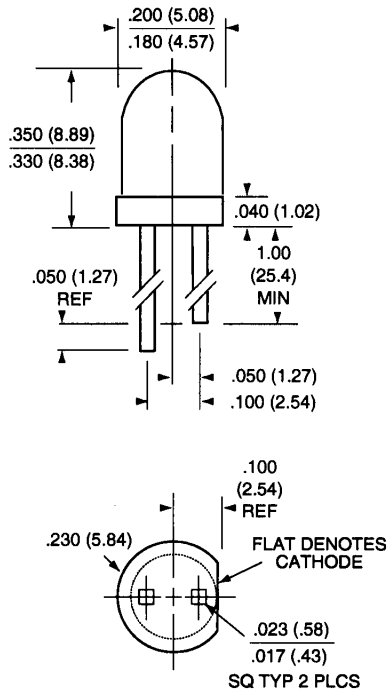


SUPER BRIGHT T-1 3/4 (5 mm) LED Lamps – Water Clear

AlGaAs Red MV8132 MV8133

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 3/4 super bright LEDs have moderately narrow a viewing of 30° for concentrated light output. It is made using AlGaAs technology and is encapsulated in a water clear epoxy package.

FEATURES

- Low drive current
- Solid state reliability
- Water clear optics
- Standard 100 millimeter lead spacing
- Super-high brightness suitable for outdoor applications

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

| Part Number: | MV813X | Unit |
|-----------------------------------------------------------------------------|---------------------------------------------------------------|------|
| DC Forward Current (I _F) | 40 | mA |
| Peak Forward Current (I _F) @ f = 1.0 KHz, Duty factor = 1/10 | 200 | mA |
| Power Dissipation (P _d) | 110 | mW |
| Reversed Voltage (V _R) I _R = 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 for wave solder; 10 secs @ 260°C for IR reflow | |



SUPER BRIGHT T-1 ¾ (5 mm) LED Lamps – Water Clear

ELECTRO-OPTICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

| Part Number: | MV8132 | MV8133 | Test Condition |
|--------------------------------------|--------|--------|------------------------|
| Luminous Intensity (mcd) | | | I _F = 20 mA |
| Minimum | 630 | 1000 | |
| Typical | 940 | 1500 | |
| Forward Voltage (V) | | | I _F = 20 mA |
| Typical | 1.7 | 1.7 | |
| Maximum | 2.4 | 2.4 | |
| Peak Wavelength (nm) | 660 | 660 | I _F = 20 mA |
| Spectral Line Half Width (nm) | 20 | 20 | I _F = 20 mA |
| Viewing Angle (degrees) | 30 | 30 | I _F = 20 mA |

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

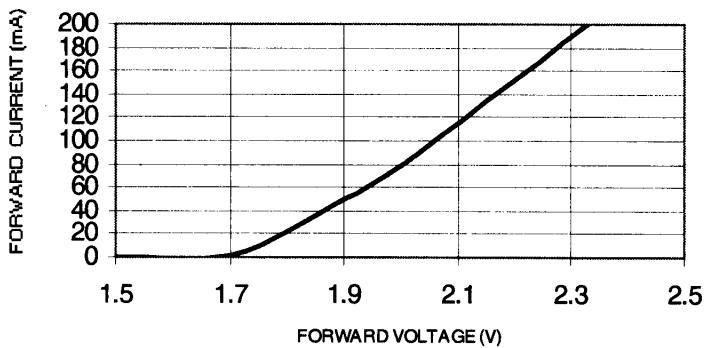


Fig 1. Forward Current vs. Forward Voltage

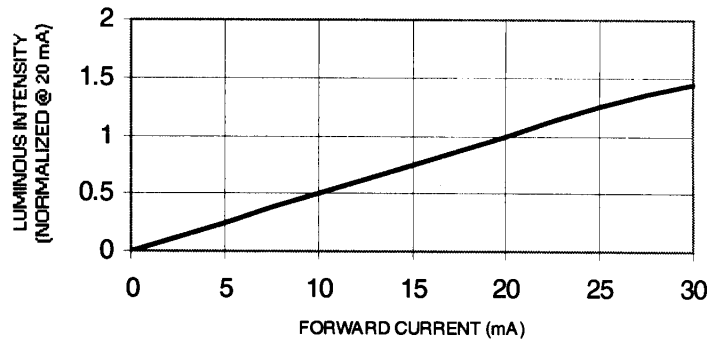


Fig 2. Relative Luminous Intensity vs. Forward Current

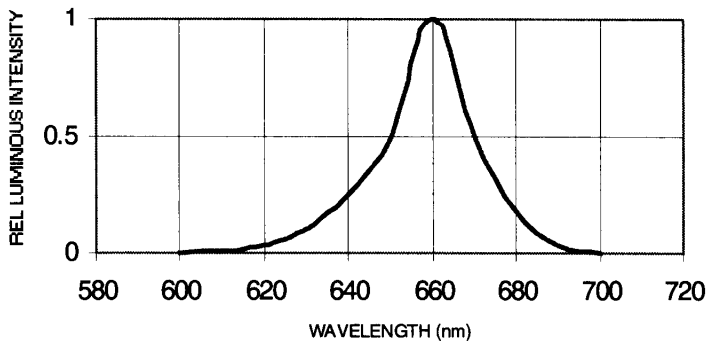


Fig 3. Relative Intensity vs. Wavelength

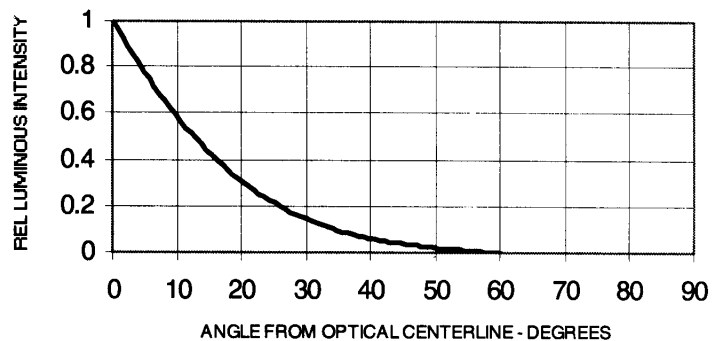


Fig 4. Relative Intensity vs. Angular Displacement