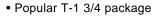


0.220 (5.08) 0.350 (8.89) 0.330 (8.38) 0.0023 (0.58) 0.017 (0.43) SQ. (2X) NOM FLAT DENOTES CATHODE

SUPER ORANGE MV8713 MV8714 MV8715 MV8716 MV871X

FEATURES



- Super high brightness suitable for outdoor applications
- Solid state reliability
- · Water clear optics
- · Standard 100 mil. lead spacing



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 1.5 mm (0.059") max.

DESCRIPTION

This T-1 3/4 super bright LED has a moderate viewing angle of 12° for concentrated light output. It is made with an AllnGaP LED that emits orange light at 620 nm. It is encapsulated in a water clear epoxy lens package.

| ABSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise specified) | | | | | | |
|---|------------------|---------------|------|--|--|--|
| Parameter | Symbol | Rating | Unit | | | |
| Operating Temperature | T _{OPR} | -40 to +100 | °C | | | |
| Storage Temperature | T _{STG} | -40 to +100 | °C | | | |
| Lead Soldering Time | T _{SOL} | 260 for 5 sec | °C | | | |
| Continuous Forward Current | I _F | 40 | mA | | | |
| Peak Forward Current | 1 | 160 | m Λ | | | |
| (f = 1.0 KHz, Duty Factor = 1/10) | l le | 160 | mA | | | |
| Reverse Voltage | V_R | 5 | V | | | |
| Power Dissipation | P _D | 100 | mW | | | |



SUPER ORANGE MV8713 MV8714 MV8715 MV8716

MV871X

| ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C) | | | | | | | |
|---|--------|--------|--------|--------|------------------------|--|--|
| Part Number | MV8713 | MV8714 | MV8715 | MV8716 | Condition | | |
| Luminous Intensity (mcd) | | | | | I _F = 20 mA | | |
| Minimum | 630 | 1000 | 1600 | 2500 | | | |
| Typical | 940 | 1500 | 2400 | 3500 | | | |
| Forward Voltage (V) | | | | | I _F = 20 mA | | |
| Maximum | 2.8 | 2.8 | 2.8 | 2.8 | | | |
| Typical | 2.1 | 2.1 | 2.1 | 2.1 | | | |
| Wavelength (nm) | | | | | I _F = 20 mA | | |
| Peak | 620 | 620 | 620 | 620 | | | |
| Dominant | 615 | 615 | 615 | 615 | | | |
| Spectral Line Half Width (nm) | 20 | 20 | 20 | 20 | I _F = 20 mA | | |
| Viewing Angle (°) | 12 | 12 | 12 | 12 | I _F = 20 mA | | |

TYPICAL PERFORMANCE CURVES

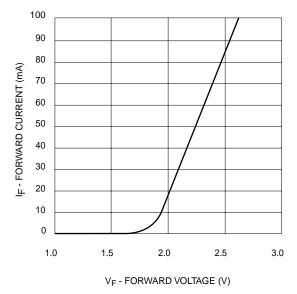


Fig. 1 Forward Current vs. Forward Voltage

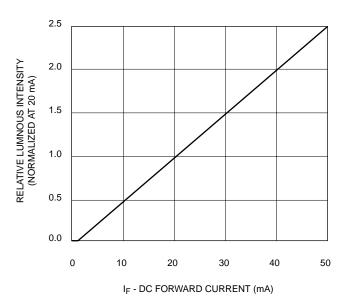


Fig. 2 Relative Luminous Intensity vs. DC Forward Current



SUPER ORANGE MV8713 MV8714 MV8715 MV8716

MV871X

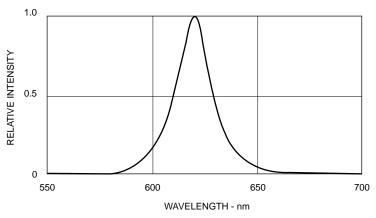
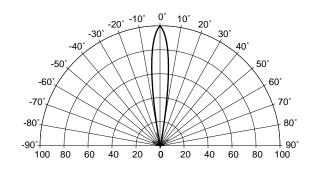


Fig. 3 Relative Intensity vs Peak Wavelength



REL. LUMINOUS INTENSITY (%)

Fig. 4 Radiation Diagram

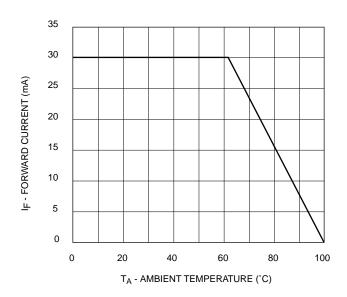


Fig. 5 Current Derating Curve



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