

SEMICONDUCTOR®

RED DIFFUSED

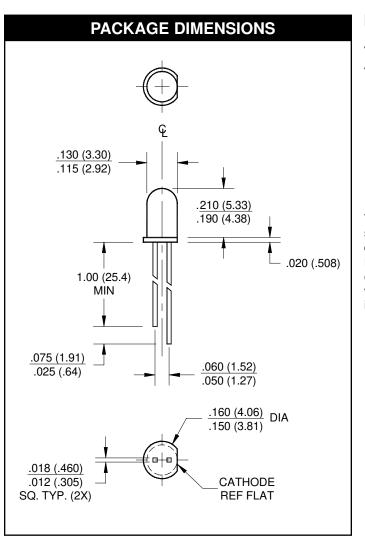
HER DIFFUSED

YELLOW DIFFUSED

T-1 SOLID STATE LAMPS

RED DIFFUSED GREEN DIFFUSED

MV5075C MV5474C



MV5074C

MV5374C

MV5774C

FEATURES

- Copper leads
- Solid-state reliability



DESCRIPTION

These solid state indicators offer a variety of color selection. The High Efficiency Red, Green and Yellow devices are made with a gallium arsenide phosphide

LED on gallium phosphide substrate. All are encapsulated in epoxy packages. Their small size (approximately T-1 size), good viewing angle, and small square leads contribute to their versatility as all purpose indicators.

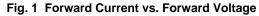
| Parameter | Symbol | Rating | Units |
|--|------------------|-------------|-------|
| Power Dissipation | P | 105 | mW |
| Derate linearly from 25°C | PD | -1.14 | mW/°C |
| Continuous Forward Current (MV5374C=20 mA) | l _F | 35 | mA |
| Peak Forward Current - (μsec pulse 0.3% duty cycle) (MV5474C=90 mA) (MV5374C=60 mA) | I _{FM} | 35 | mA |
| Reverse Voltage ($I_R = 100 \ \mu A$) | V _R | 5 | V |
| Lead Soldering Time at 260°C (See Note 1) | T _{SOL} | 5 | sec |
| Operating Temperature | T _{OPR} | -55 to +100 | °C |
| Storage Temperature | T _{STG} | -55 to +100 | °C |

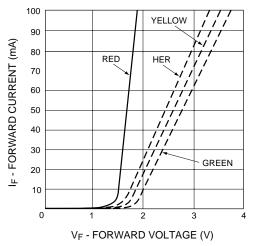
| ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C) | | | | | | | | | |
|---|----------------|---------|---------|---------|---------|---------|----------------------|--|--|
| Part Number | Symbol | MV5074C | MV5075C | MV5374C | MV5474C | MV5774C | Condition | | |
| Luminous Intensity (mcd) | | | | | | | $I_F = 20 \text{mA}$ | | |
| Minimum | Iv | 0.7 | 0.6 | 1.5 | 1.2 | 1.5 | | | |
| Typical | | 2.5 | 1.5 | 9.0 | 9.0 | 9.0 | | | |
| Forward Voltage (V) | | | | | | | $I_F = 20 \text{mA}$ | | |
| Typical | V _F | 1.6 | 1.6 | 2.1 | 2.2 | 2.0 | | | |
| Maximum | | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | | | |
| Spectral Line Half Width (nm) | | 20 | 20 | 35 | 35 | 45 | $I_F = 20 mA$ | | |
| Peak Wavelength (nm) | λρ | 660 | 660 | 585 | 565 | 635 | IF = 20mA | | |
| Reverse Current (µA) | | | | | | | $V_{R} = 5.0V$ | | |
| Maximum | | 100 | 100 | 100 | 100 | 100 | | | |
| Viewing Angle (Total) (°) | 20 1/2 | 70 | 90 | 90 | 90 | 90 | See Fig. 3 | | |

1. The leads of the device were immersed in molten solder at 260°C, to a point 1/16 inch (1.6 mm) from the body of the device per MIL-S-750, with a dwell time of 5 seconds.



TYPICAL PERFORMANCE CURVES (TA =25°C)





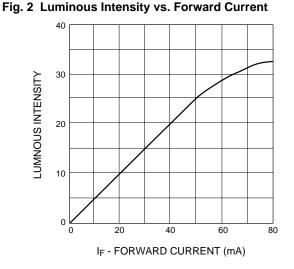
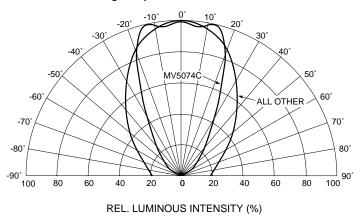
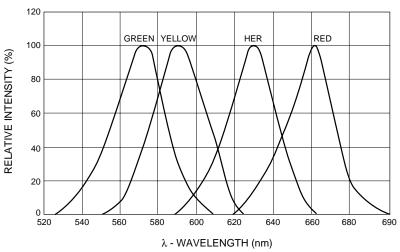


Fig. 3 Spatial Distribution









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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.