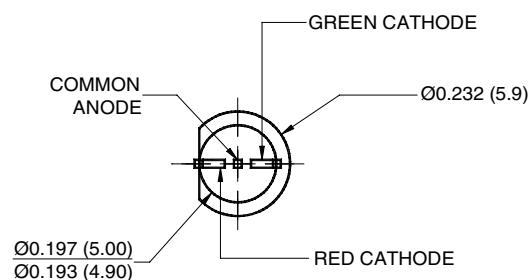
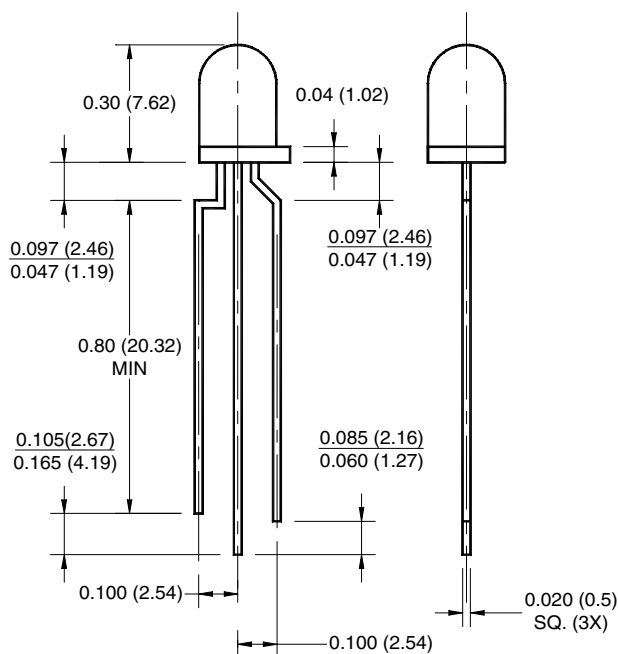


# 3 LEAD BICOLOR T-1 3/4 (5 mm) SOLID STATE LAMPS

## PACKAGE DIMENSIONS



### NOTES:

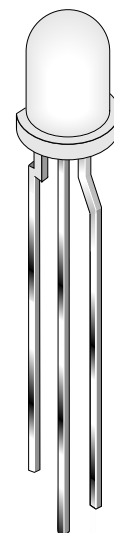
1. Dimensions for all drawings are in inches (mm).
2. Tolerance is  $\pm 0.12$ " unless otherwise specified.

**GREEN / AlGaAs RED**

**MV5439A**

## FEATURES

- Popular T-1 3/4 package
- Wide viewing angle
- Solid state reliability
- TTL compatible



## DESCRIPTION

The MV5439A is a three-lead bicolor T-1 3/4 (5mm) lamp with a central common anode lead. Each lamp comes with a white diffused lens and has a 100° viewing angle.

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

| Parameter                                                                     | AlGaAs Red    | Green | Units            |
|-------------------------------------------------------------------------------|---------------|-------|------------------|
| Continuous Forward Current - $I_F$                                            | 30            | 30    | mA               |
| Peak Forward Current - $I_F$<br>( $f = 1.0 \text{ KHz}$ , Duty Factor = 1/10) | 90            | 90    | mA               |
| Reverse Voltage - $V_R$ ( $I_R = 10 \mu\text{A}$ )                            | 5             | 5     | V                |
| Power Dissipation - $P_D$                                                     | 120           | 120   | mW               |
| Operating Temperature - $T_{OPR}$                                             | -55 to +100   |       | $^\circ\text{C}$ |
| Storage Temperature - $T_{STG}$                                               | -55 to +100   |       | $^\circ\text{C}$ |
| Lead Soldering Time - $T_{SOL}$                                               | 260 for 5 sec |       | $^\circ\text{C}$ |

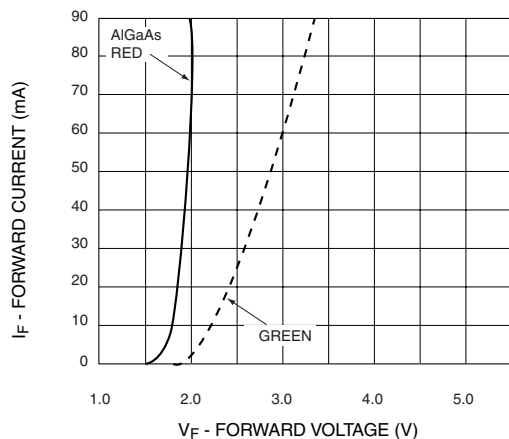
**GREEN / AlGaAs RED**

**MV5439A**

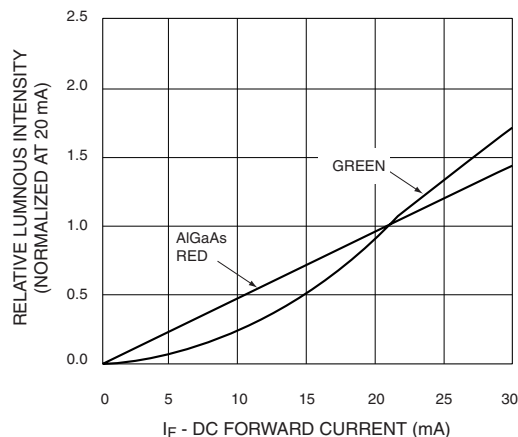
## ELECTRICAL / OPTICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

| Part Number                     | MV5439A<br>Grn/AlGaAs Red | Condition              |
|---------------------------------|---------------------------|------------------------|
| Luminous Intensity (mcd)        |                           | I <sub>F</sub> = 20 mA |
| Minimum                         | 2/10                      |                        |
| Typical                         | 6/25                      |                        |
| Forward Voltage (V)             |                           | I <sub>F</sub> = 20 mA |
| Maximum                         | 3.0/2.4                   |                        |
| Typical                         | 2.3/1.7                   |                        |
| Chromatic Coordinates - Typical | X = 0.27, Y = 0.28        | I <sub>F</sub> = 20 mA |
| Wavelength (nm)                 | 565/660                   | I <sub>F</sub> = 20 mA |
| Spectral Line Half Width (nm)   | 30/20                     | I <sub>F</sub> = 20 mA |
| Viewing Angle (°)               | 100                       | I <sub>F</sub> = 20 mA |

## TYPICAL PERFORMANCE CURVES



**Fig. 1 Forward Current vs. Forward Voltage**

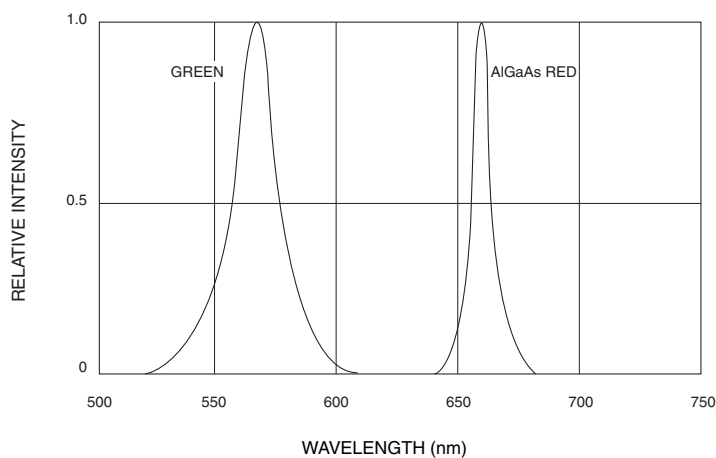


**Fig. 2 Relative Luminous Intensity vs. DC Forward Current**

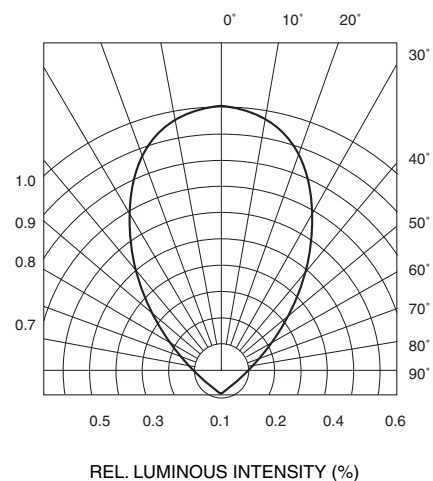
# 3 LEAD BICOLOR T-1 3/4 (5 mm) SOLID STATE LAMPS

**GREEN / AlGaAs RED**

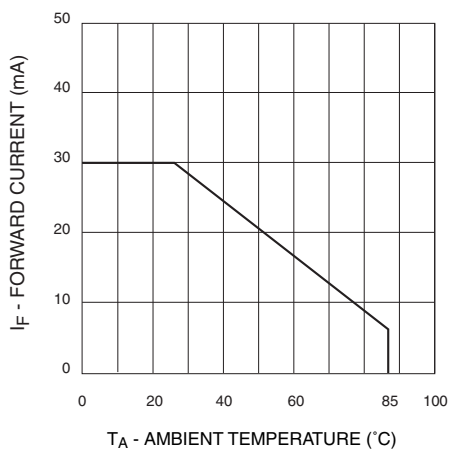
**MV5439A**



**Fig. 3 Relative Intensity vs. Peak Wavelength**



**Fig. 4 Radiation Diagram**



**Fig. 5 Current Derating Curve**

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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.