

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

### **PACKAGE DIMENSIONS** 0.04 (1.02) 0.30 (7.62) 0.097 (2.46) 0.097 (2.46) 0.047 (1.19) 0.047 (1.19) 0.80 (20.32) MIN 0.085 (2.16) 0.105(2.67) 0.165 (4.19) 0.060 (1.27) 0.100 (2.54) 0.020 (0.5) SQ. (3X) 0.100 (2.54) GREEN CATHODE COMMON Ø0.232 (5.9) ANODE Ø0.197 (5.00) **RED CATHODE** Ø0.193 (4.90) NOTES:

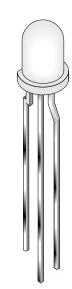
1. Dimensions for all drawings are in inches (mm).

2. Tolerance is ±0.12" unless otherwise specified.

GREEN / AIGaAs 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 <sub>A</sub> = 25°C unless otherwise specified)				
Parameter	AlGaAs Red	Green	Units	
Continuous Forward Current - I <sub>F</sub>	30	30	mA	
Peak Forward Current - I <sub>F</sub>	90	90	mA	
(f = 1.0 KHz, Duty Factor = 1/10)	90			
Reverse Voltage - V <sub>R</sub> (I <sub>R</sub> = 10 μA)	5	5	V	
Power Dissipation - P <sub>D</sub>	120	120	mW	
Operating Temperature - T <sub>OPR</sub>	-55 to +100		°C	
Storage Temperature - T <sub>STG</sub>	-55 to +100		°C	
Lead Soldering Time - T <sub>SOL</sub>	260 for 5 sec		°C	



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ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)				
Part Number	MV5439A 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**

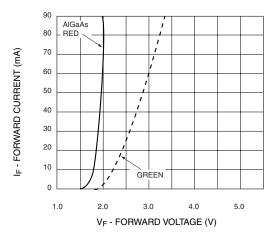


Fig. 1 Forward Current vs. Forward Voltage

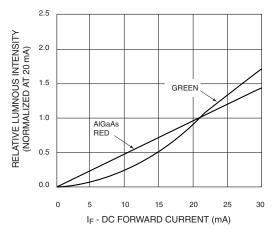


Fig. 2 Relative Luminous Intensity vs.
DC Forward Current



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### **GREEN / AIGaAs RED**

MV5439A

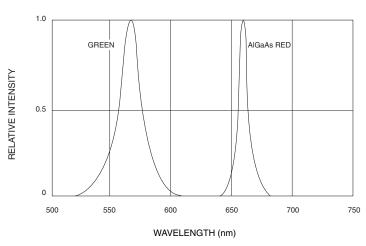


Fig. 3 Relative Intensity vs. Peak Wavelength

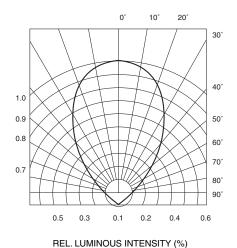


Fig. 4 Radiation Diagram

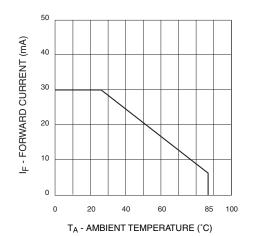


Fig. 5 Current Derating Curve



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