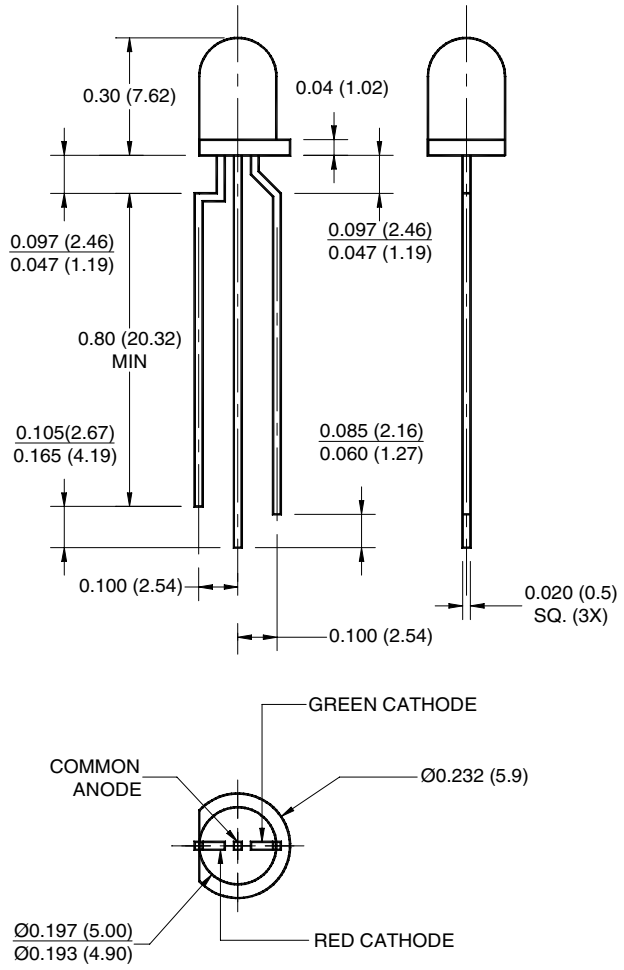
FAIRCHILD
SEMICONDUCTOR™

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

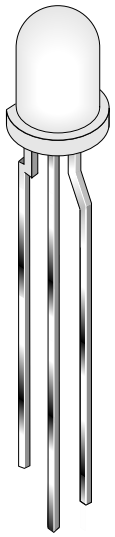
GREEN / AlGaAs RED **MV5439A**

PACKAGE DIMENSIONS



NOTES:

1. Dimensions for all drawings are in inches (mm).
2. Tolerance is ±0.12” unless otherwise specified.



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°C unless otherwise specified)

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

GREEN / AlGaAs RED **MV5439A**

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

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

TYPICAL PERFORMANCE CURVES

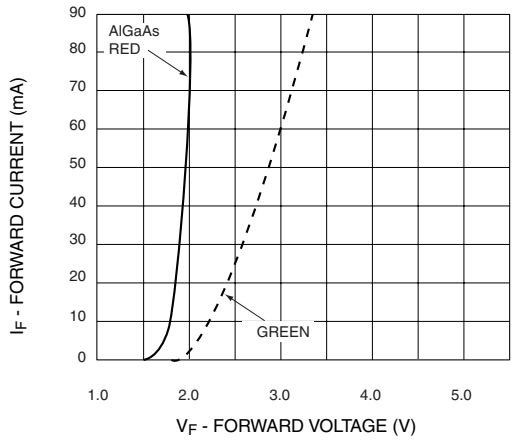


Fig. 1 Forward Current vs. Forward Voltage

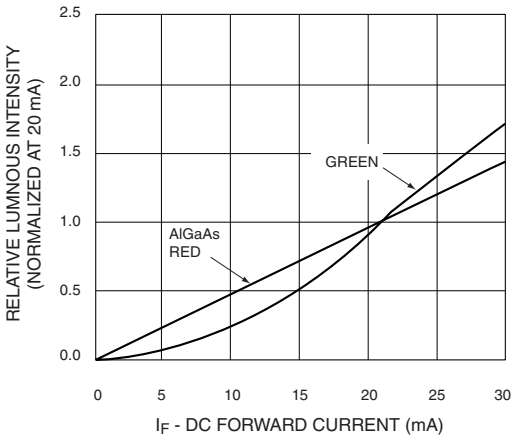


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

GREEN / AlGaAs RED MV5439A

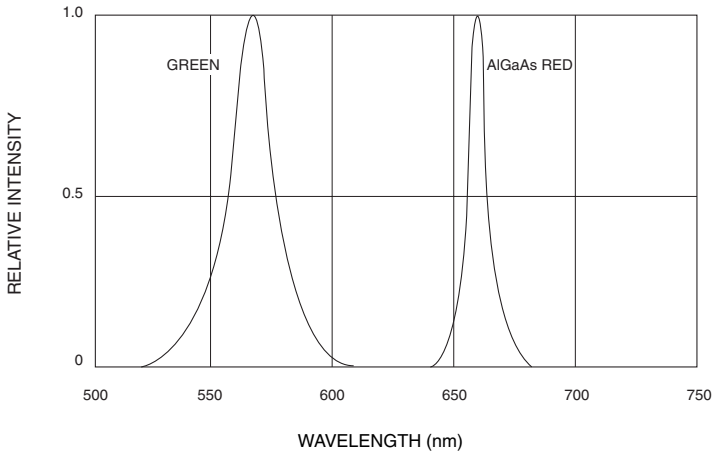


Fig. 3 Relative Intensity vs. Peak Wavelength

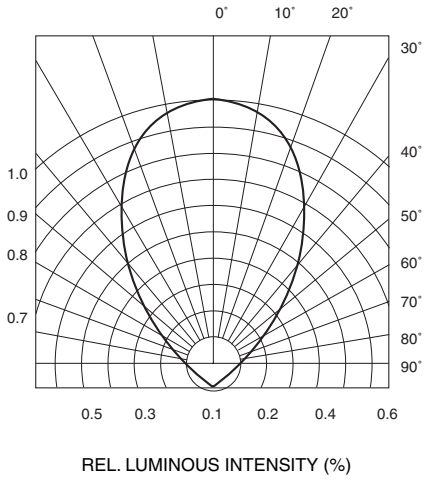


Fig. 4 Radiation Diagram

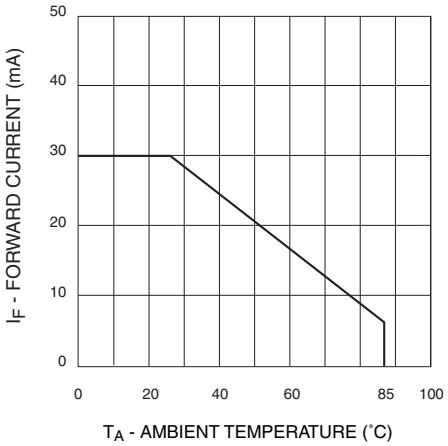


Fig. 5 Current Derating Curve

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
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.