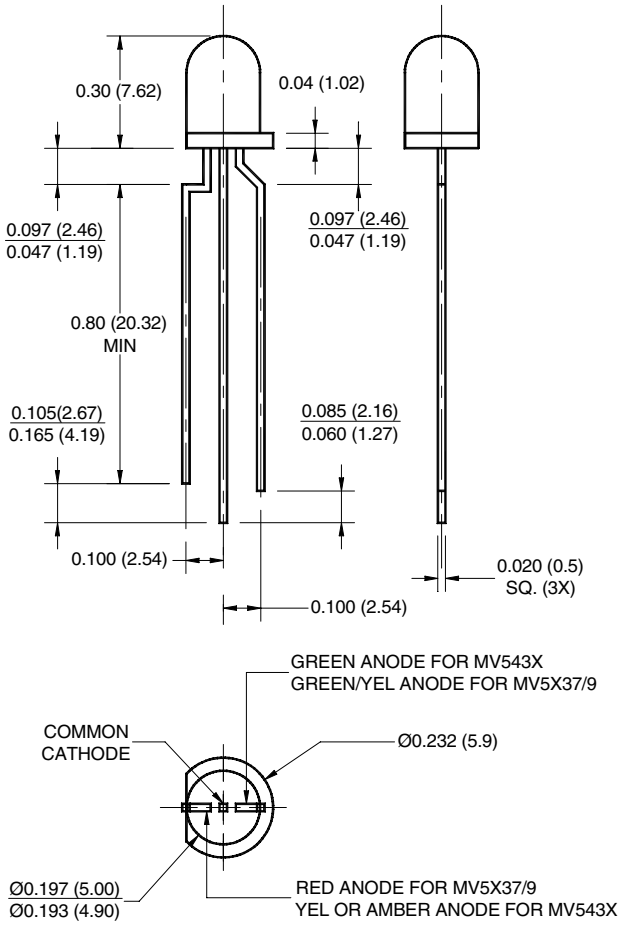
FAIRCHILD
SEMICONDUCTOR®

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

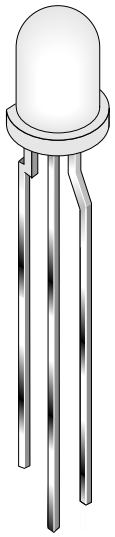
GREEN / YELLOW	MV5433
GREEN / ORANGE	MV5438
YELLOW / HER	MV5337
GREEN / HER	MV5437
GREEN / AlGaAs RED	MV5439

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 MV5X3X T-1 3/4 (5 mm) lamp is a three-lead bicolor light source with a central common cathode 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	HER	Green	Yellow	Orange	Units
Continuous Forward Current (I_F)	30	30	30	20	30	mA
Peak Forward Current (I_F) (f = 1.0 KHz, Duty Factor = 1/10)	90	90	90	60	90	mA
Power Dissipation (P_D)	120	120	120	85	100	mW
Reverse Voltage (V_R)	5	5	5	5	5	V
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

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ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	MV5437 Grn/HER	MV5337 Yel/HER	MV5433 Grn/Yel	MV5438 Grn/Orange	MV5439 Grn/AlGaAs Red	Condition
Luminous Intensity (mcd)						I_F = 20 mA
Minimum	2/2	2/2	2/2	2/2	2/10	
Typical	6/6	6/6	6/6	6/6	6/25	
Forward Voltage (V)						I_F = 20 mA
Maximum	3.0/3.0	3.0/3.0	3.0/3.0	3.0/3.0	3.0/2.4	
Typical	2.1/2.1	2.1/2.1	2.3/2.3	2.3/2.3	2.3/1.7	
Peak Wavelength (nm)	565/635	585/635	565/585	565/610	565/660	I_F = 20 mA
Spectral Line Half Width (nm)	30/45	35/45	30/35	30/40	30/20	I_F = 20 mA
Viewing Angle (°)	100°	100°	100°	100°	100°	I_F = 20 mA

TYPICAL PERFORMANCE CURVES

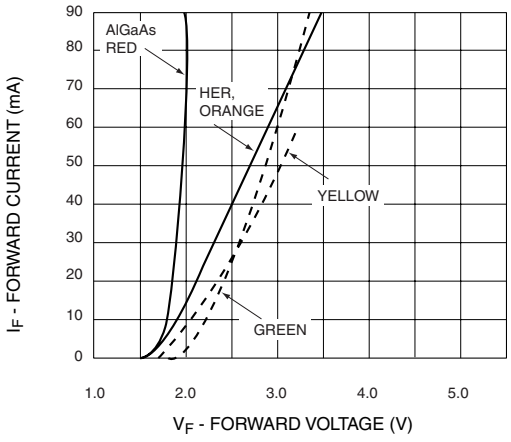

Fig. 1 Forward Current vs. Forward Voltage

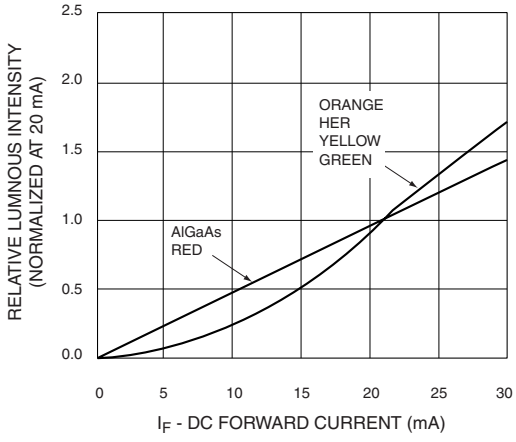

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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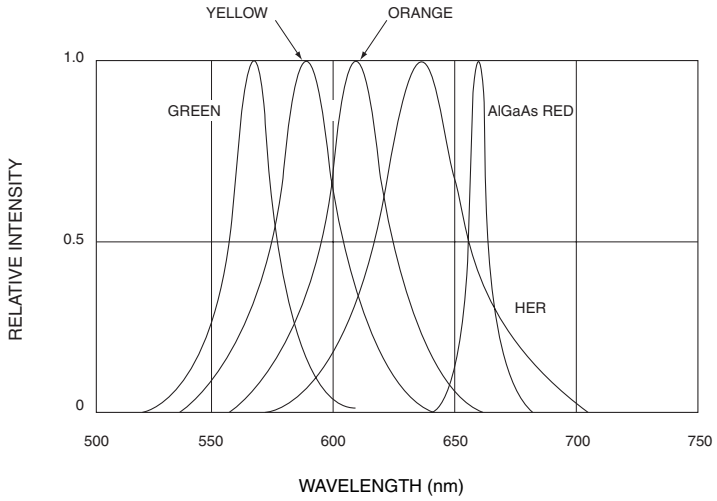

Fig. 3 Relative Intensity vs. Peak Wavelength

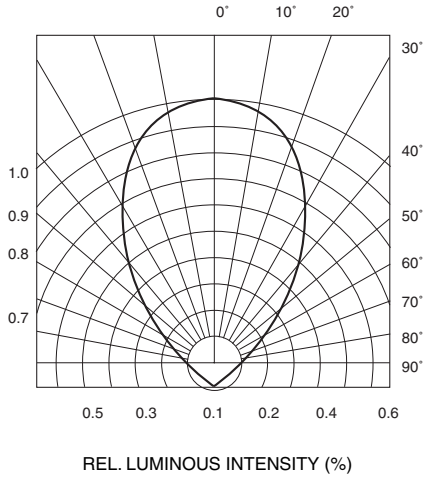

Fig. 4 Radiation Diagram

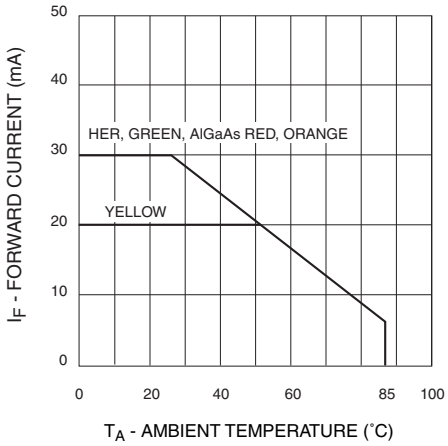

Fig. 5 Current Derating Curve

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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.