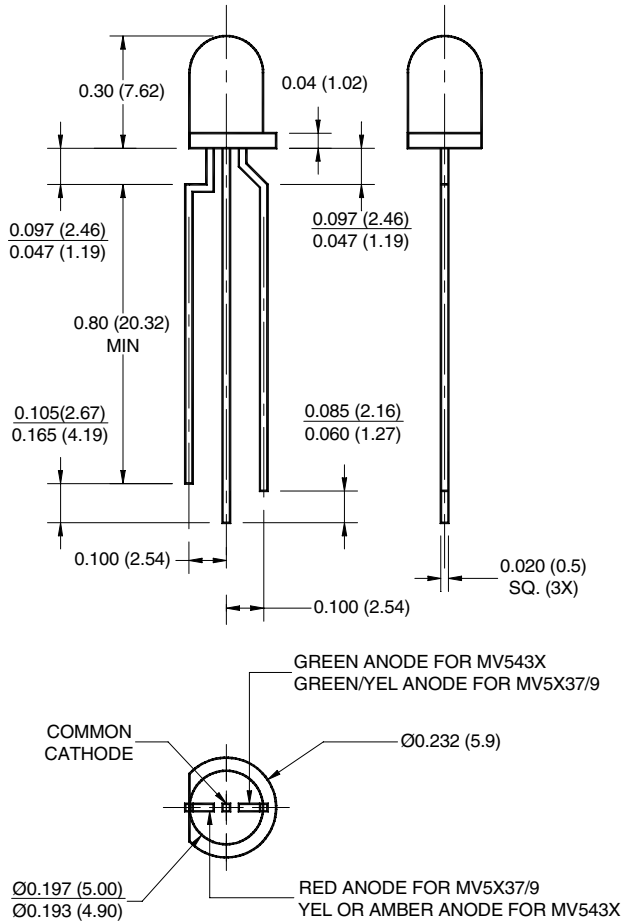


# 3 LEAD BICOLOR T-1 3/4 (5 mm) SOLID STATE LAMPS

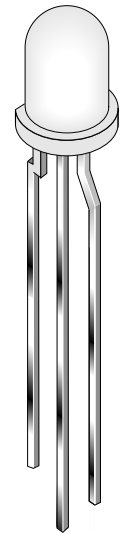
## PACKAGE DIMENSIONS



### NOTES:

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

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



## 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 ( $T_A = 25^\circ\text{C}$ 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					$^\circ\text{C}$
Storage Temperature ( $T_{STG}$ )	-55 to +100					$^\circ\text{C}$
Lead Soldering Time ( $T_{SOL}$ )	260 for 5 sec					$^\circ\text{C}$

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

## ELECTRICAL / OPTICAL CHARACTERISTICS (T<sub>A</sub> = 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 <sub>F</sub> = 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 <sub>F</sub> = 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 <sub>F</sub> = 20 mA
Spectral Line Half Width (nm)	30/45	35/45	30/35	30/40	30/20	I <sub>F</sub> = 20 mA
Viewing Angle (°)	100°	100°	100°	100°	100°	I <sub>F</sub> = 20 mA

## TYPICAL PERFORMANCE CURVES

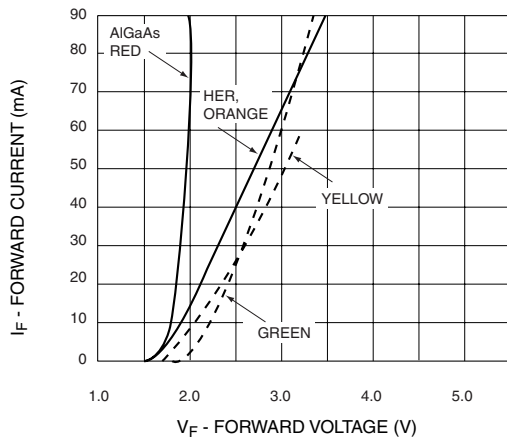


Fig. 1 Forward Current vs. Forward Voltage

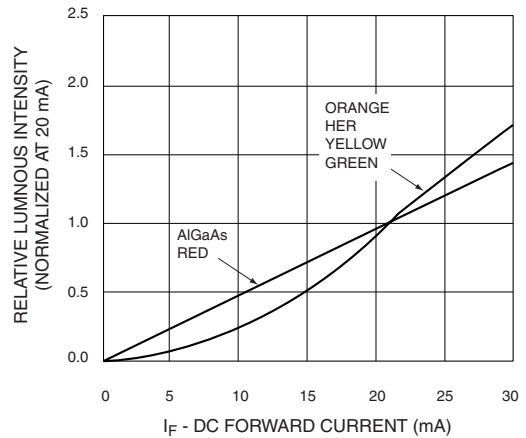
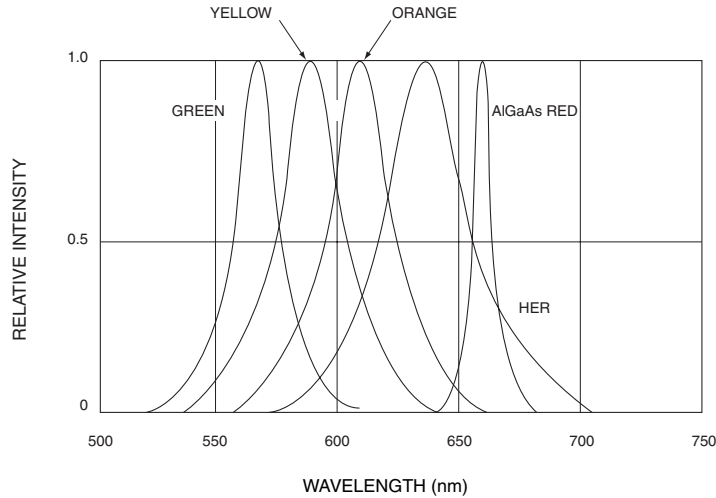


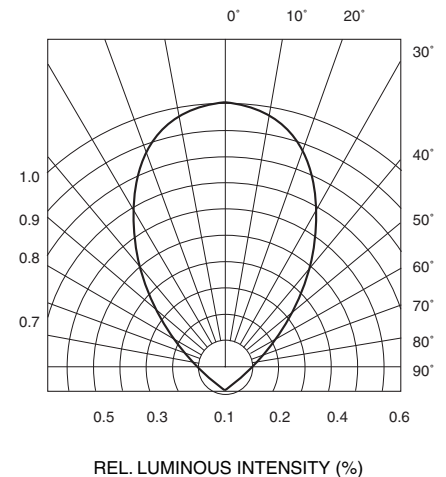
Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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

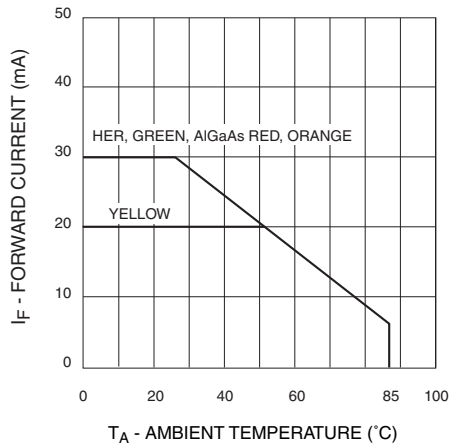
<b>GREEN / YELLOW</b>	<b>MV5433</b>
<b>GREEN / ORANGE</b>	<b>MV5438</b>
<b>YELLOW / HER</b>	<b>MV5337</b>
<b>GREEN / HER</b>	<b>MV5437</b>
<b>GREEN / AlGaAs RED</b>	<b>MV5439</b>



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



**Fig. 4 Radiation Diagram**



**Fig. 5 Current Derating Curve**

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

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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.