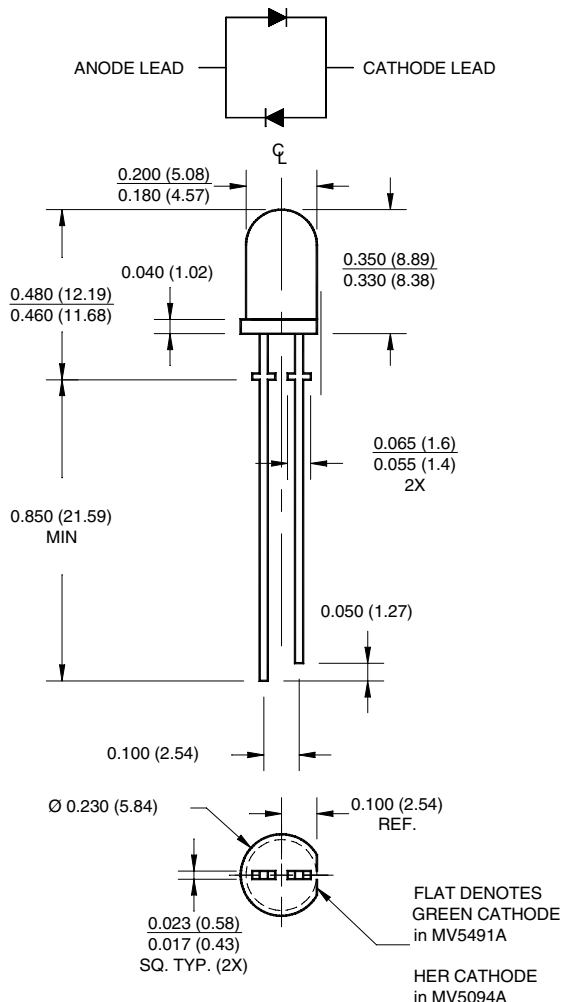


# BIPOLAR T-1 3/4 (5mm) LED LAMP - DIFFUSED

## PACKAGE DIMENSIONS



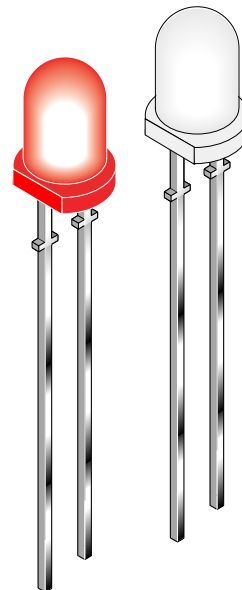
NOTE:  
Dimensions are in inches (mm).

**AlGaAs RED / HER**  
**AlGaAs RED / GREEN**

**MV5094A**  
**MV5491A**

## FEATURES

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



## DESCRIPTION

The MV5X9XA is a two-leaded bipolar T-1 3/4 (5mm) lamp with standoff. Each lamp comes with a white diffused lens with a viewing angle of 75°.

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	AlGaAs Red/HER MV5094A	AlGaAs Red/Green MV5491A	Units
Continuous Forward Current - I <sub>F</sub>	30/30	30/30	mA
Peak Forward Current - I <sub>F</sub> (f = 1.0 KHz, Duty Factor = 1/10)	90	90	mA
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>	-40 to +100		°C
Storage Temperature - T <sub>STG</sub>	-40 to +100		°C
Lead Soldering Time - T <sub>SOL</sub>			
Wave	260 for 5 sec		°C
Reflow	240 for 5 sec		

**AlGaAs RED / HER**  
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**MV5491A**

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

Part Number	AlGaAs Red/HER MV5094A	AlGaAs Red/Green MV5491A	Condition
Luminous Intensity (mcd)			I <sub>F</sub> = 20 mA
Minimum	2/2	2/2	
Typical	5/5	5/5	
Forward Voltage (V)			I <sub>F</sub> = 20 mA
Maximum	2.8/2.8	2.8/2.8	
Typical	2.0/2.0	2.0/2.0	
Peak Wavelength (nm)	660/635	660/565	I <sub>F</sub> = 20 mA
Spectral Line Half Width (nm)	20/45	20/30	I <sub>F</sub> = 20 mA
Viewing Angle (°)	75	75	I <sub>F</sub> = 20 mA

## TYPICAL PERFORMANCE CURVES

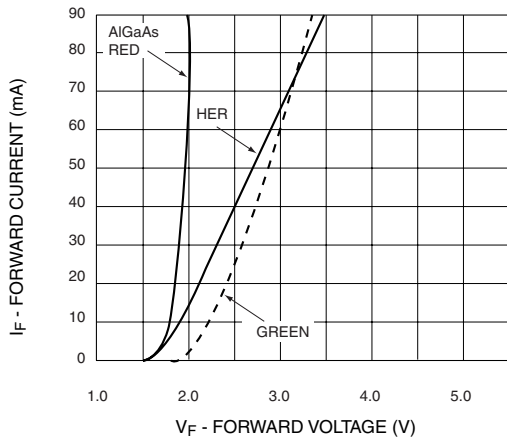


Fig. 1 Forward Current vs. Forward Voltage

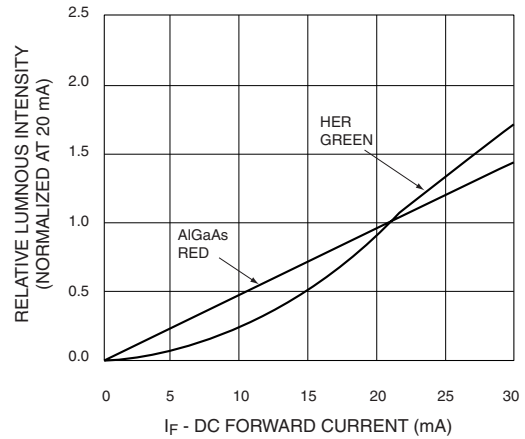
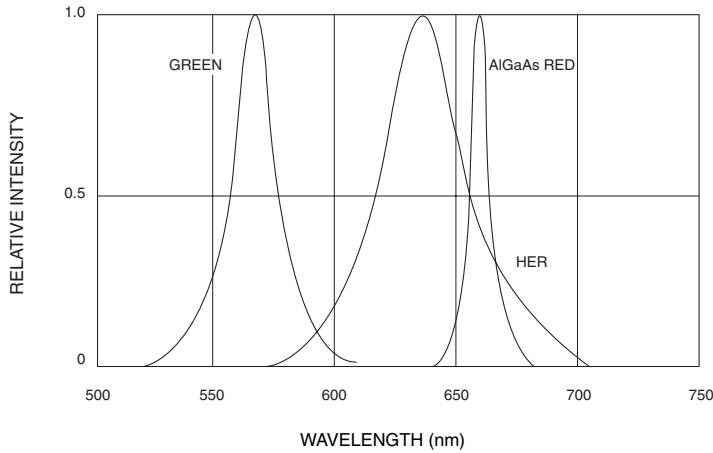


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

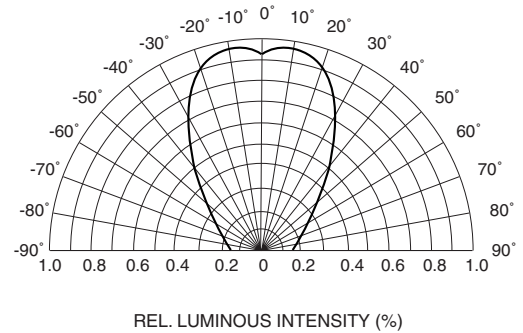
**AlGaAs RED / HER**  
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**MV5094A**  
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**TYPICAL PERFORMANCE CURVES**

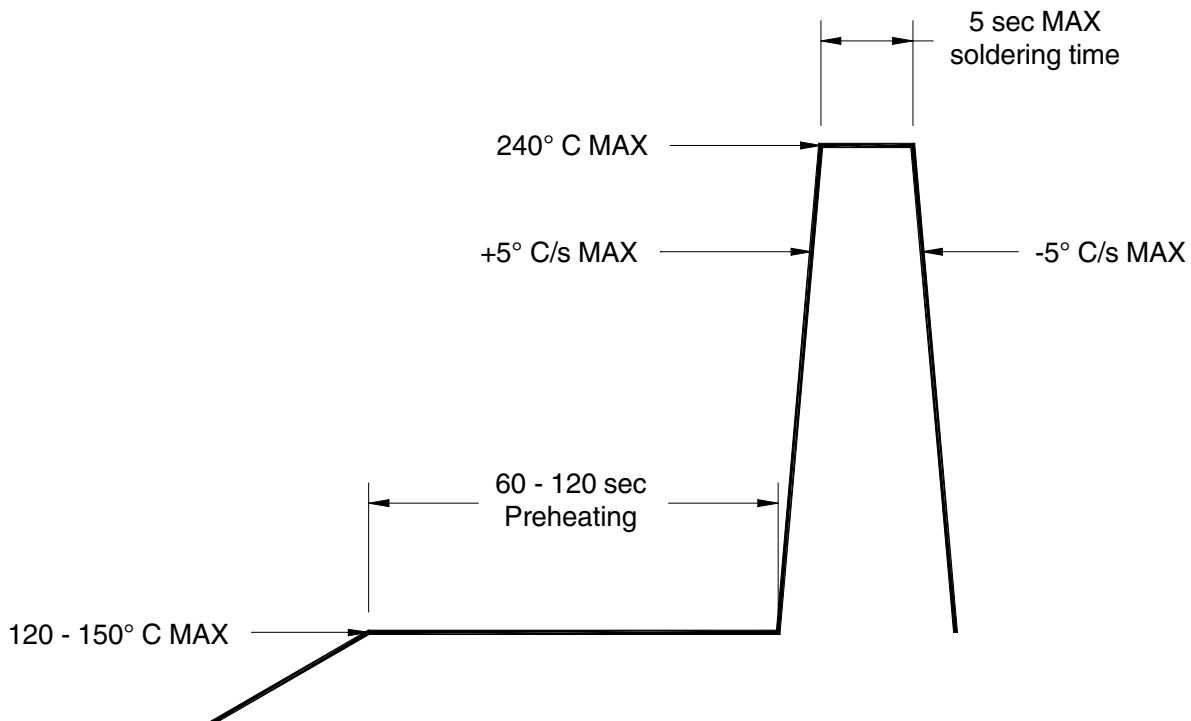


**Fig. 3 Relative Intensity vs. Peak Wavelength**



**Fig.4 Radiation Diagram**

**RECOMMENDED IR REFLOW SOLDERING PROFILE**



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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.