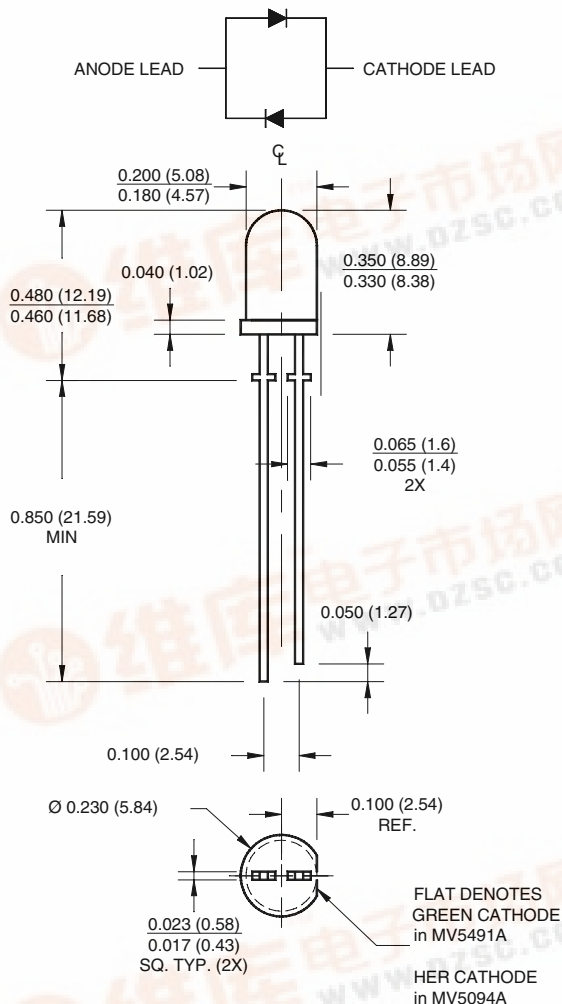


# BIPOLAR T-1 3/4 (5mm) LED LAMP - DIFFUSED

## PACKAGE DIMENSIONS



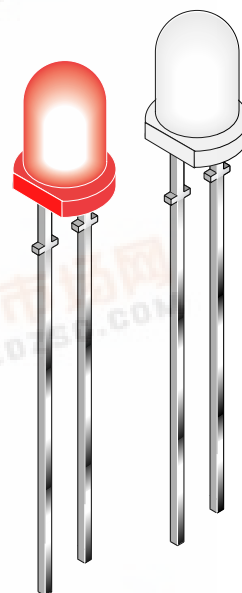
NOTE:  
Dimensions are in inches (mm).

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

**MV5094A**  
**MV5491A**

## FEATURES

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



## DESCRIPTION

The MV5094A 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<br>MV5094A | AlGaAs Red/Green<br>MV5491A | Units |
|----------------------------------------------------------------------------|---------------------------|-----------------------------|-------|
| Continuous Forward Current - I <sub>F</sub>                                | 30/30                     | 30/30                       | mA    |
| Peak Forward Current - I <sub>F</sub><br>(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>                                     | 260 for 5 sec             |                             | °C    |
| Wave Reflow                                                                | 240 for 5 sec             |                             | °C    |

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AlGaAs RED / HER  
AlGaAs RED / GREEN

MV5094A  
MV5491A

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

| Part Number                   | AlGaAs Red/HER<br>MV5094A | AlGaAs Red/Green<br>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

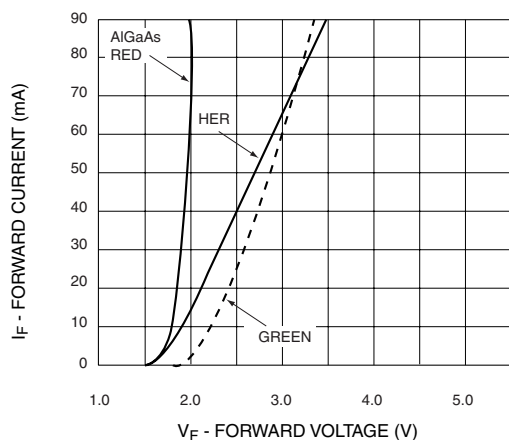


Fig. 1 Forward Current vs. Forward Voltage

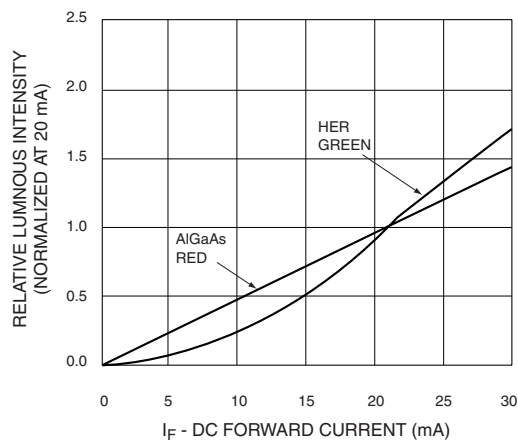


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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MV5094A  
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## TYPICAL PERFORMANCE CURVES

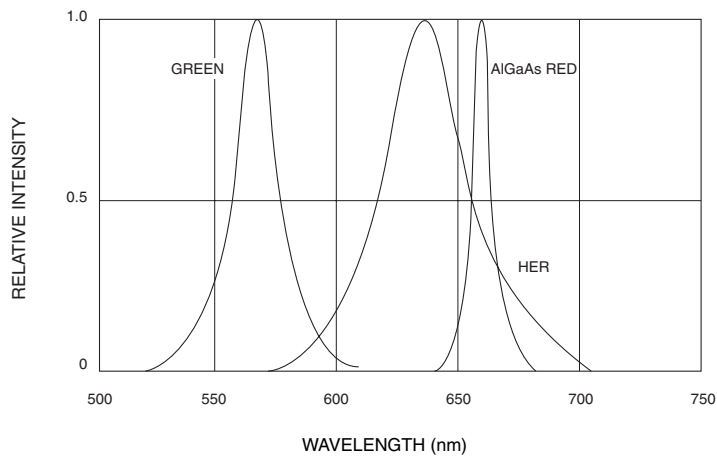


Fig. 3 Relative Intensity vs. Peak Wavelength

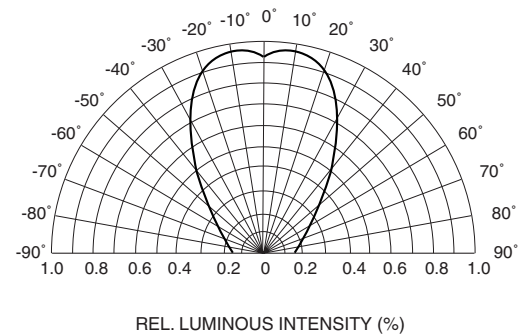
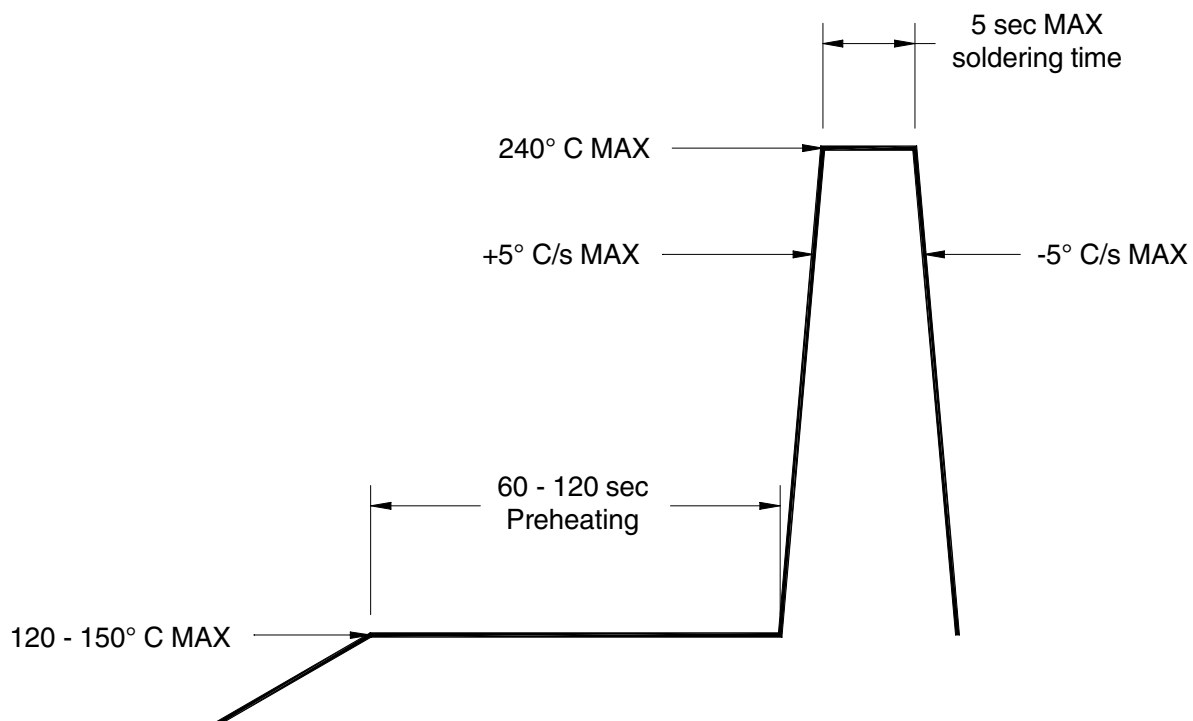


Fig. 4 Radiation Diagram

## 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.