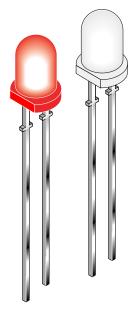


PACKAGE DIMENSIONS ANODE LEAD CATHODE LEAD မှ 0.200 (5.08) 0.180 (4.57) 0.350 (8.89) 0.040 (1.02) 0.330 (8.38) 0.480 (12.19) 0.460 (11.68) 0.065 (1.6) 0.055 (1.4) 2X 0.850 (21.59) MIN 0.050 (1.27) 0.100 (2.54) Ø 0.230 (5.84) 0.100 (2.54) REF. FLAT DENOTES GREEN CATHODE 0.023 (0.58) in MV5491A 0.017 (0.43) SQ. TYP. (2X) HER CATHODE in MV5094A NOTE: Dimensions are in inches (mm).

AIGaAs RED / HER AIGaAs 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 _A = 25°C unless otherwise specified)					
Parameter	AlGaAs Red/HER MV5094A	AlGaAs Red/Green MV5491A	Units		
Continuous Forward Current - I _F	30/30	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}	-40 to +100		°C		
Storage Temperature - T _{STG}	-40 to +100		°C		
Lead Soldering Time - T _{SOL}					
Wave	260 for 5 sec		°C		
Reflow	240 for 5 sec				



AIGaAs RED / HER MV5094A AIGaAs RED / GREEN MV5491A

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)				
Part Number	AlGaAs Red/HER MV5094A	AlGaAs Red/Green MV5491A	Condition	
Luminous Intensity (mcd)			I _F = 20 mA	
Minimum	2/2	2/2		
Typical	5/5	5/5		
Forward Voltage (V)			I _F = 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 _F = 20 mA	
Spectral Line Half Width (nm)	20/45	20/30	I _F = 20 mA	
Viewing Angle (°)	75	75	I _F = 20 mA	

TYPICAL PERFORMANCE CURVES

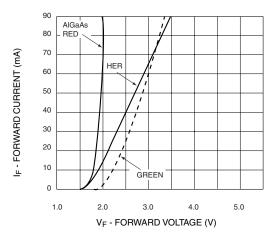


Fig. 1 Forward Current vs. Forward Voltage

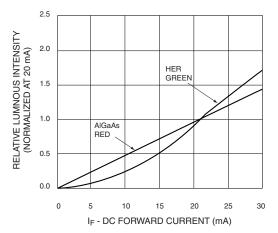
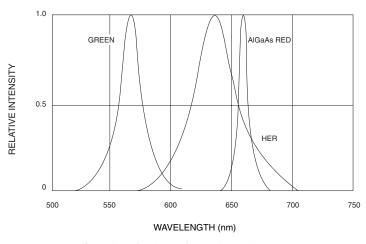


Fig. 2 Relative Luminous Intensity vs. DC Forward Current



AIGaAs RED / HER AIGaAs RED / GREEN MV5094A MV5491A

TYPICAL PERFORMANCE CURVES



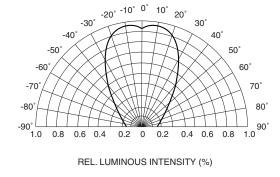
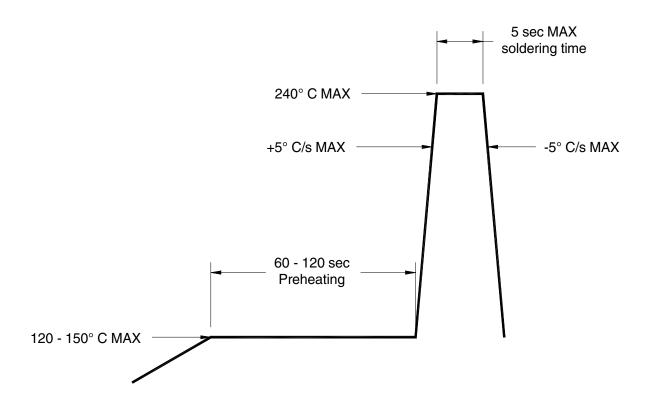


Fig. 3 Relative Intensity vs. Peak Wavelength

Fig.4 Radiation Diagram

RECOMMENDED IR REFLOW SOLDERING PROFILE





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:

- 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.
- 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.

www.fairchildsemi.com

© 2000 Fairchild Semiconductor Corporation