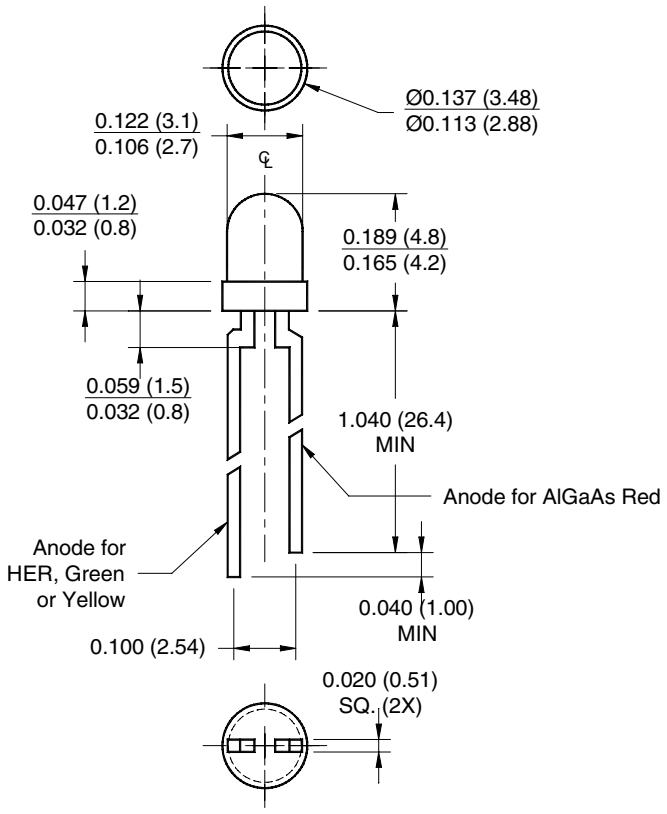
FAIRCHILD
SEMICONDUCTOR™

BICOLOR T-100 (3 mm)
SOLID STATE LED LAMPS

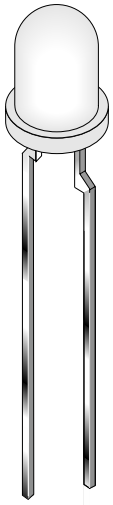
HER / AlGaAs RED	**MV6661A**
GREEN / AlGaAs RED	**MV6461A**
YELLOW / AlGaAs RED	**MV6361A**

PACKAGE DIMENSIONS



NOTES:

1. Dimensions for all drawings are in inches (mm).
2. Tolerance is ±0.12” unless otherwise specified.



FEATURES

- Excellent luminous uniformity
- Wide viewing angle
- Solid state reliability

DESCRIPTION

The MV6X61A series is a bicolor, bipolar LED lamp with a wide viewing angle of 100°. In particular, MV6461A offers 4 states - green, red, orange (when AC driven) and off.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	AlGaAs Red	HER	Green	Yellow	Units
Continuous Forward Current - I_F	30	30	30	25	mA
Peak Forward Current - I_F (f = 1.0 KHz, Duty Factor = 1/10)	90	90	90	60	mA
Reverse Voltage - V_R (I_R = 10 µA)	5	5	5	5	V
Power Dissipation - P_D	135	135	135	95	mW
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	MV6661A HER / AlGaAs Red	MV6461A Green / AlGaAs Red	MV6361A Yellow / AlGaAs Red	Condition
Luminous Intensity (mcd)				I_F = 20 mA
Minimum	2.5/2.5	2.5/2.5	2.5/2.5	
Typical	10/10	10/10	10/10	
Forward Voltage (V)				I_F = 20 mA
Maximum	3.0/2.4	3.0/2.4	3.0/2.4	
Typical	2.1/1.7	2.1/1.7	2.1/1.7	
Peak Wavelength (nm)	635/660	565/660	585/660	I_F = 20 mA
Spectral Line Half Width (nm)	45/20	30/20	35/20	I_F = 20 mA
Viewing Angle (°)	100°	100°	100°	I_F = 20 mA

TYPICAL PERFORMANCE CURVES

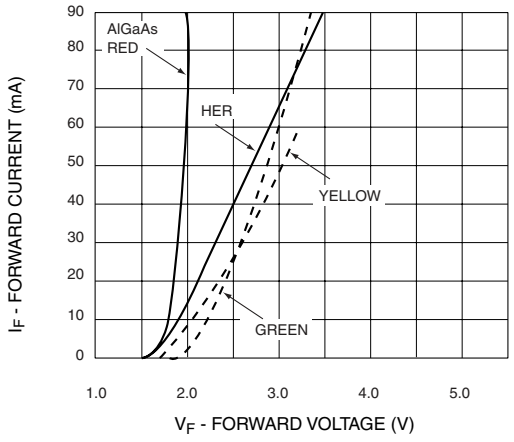

Fig. 1 Forward Current vs. Forward Voltage

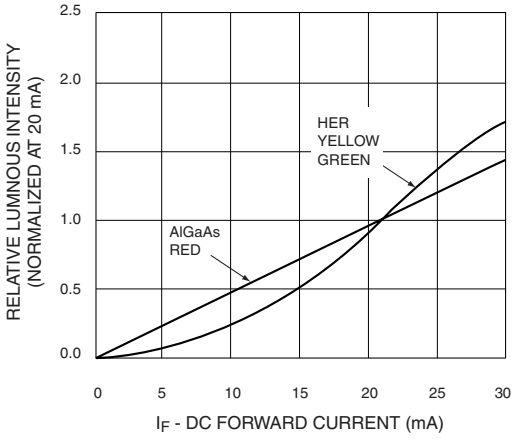

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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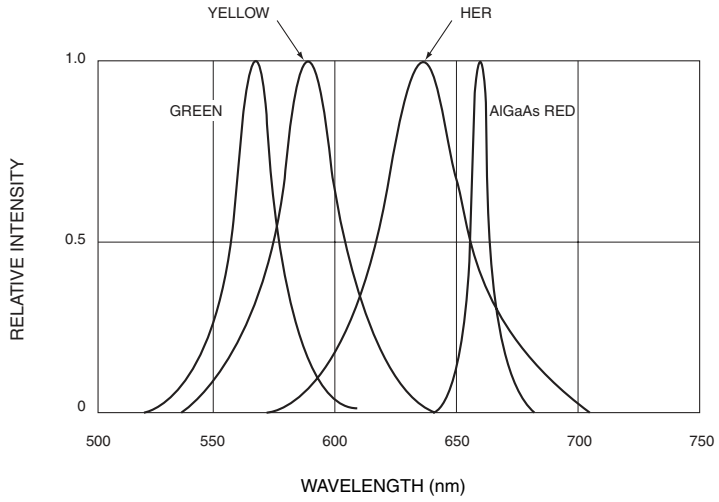

Fig. 3 Relative Intensity vs. Peak Wavelength

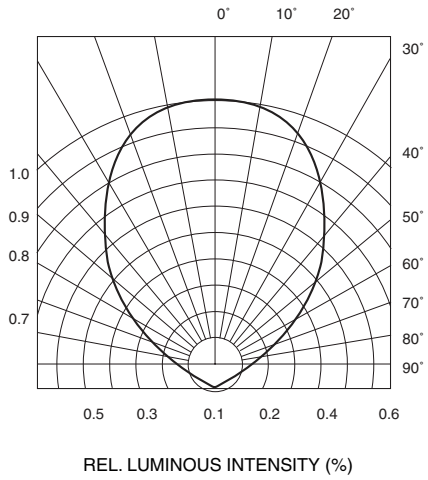

Fig. 4 Radiation Diagram

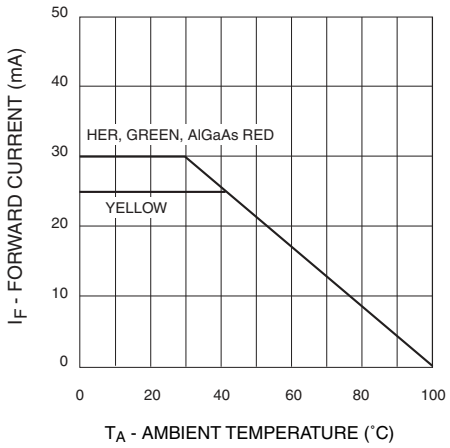

Fig. 5 Current Derating Curve

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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.