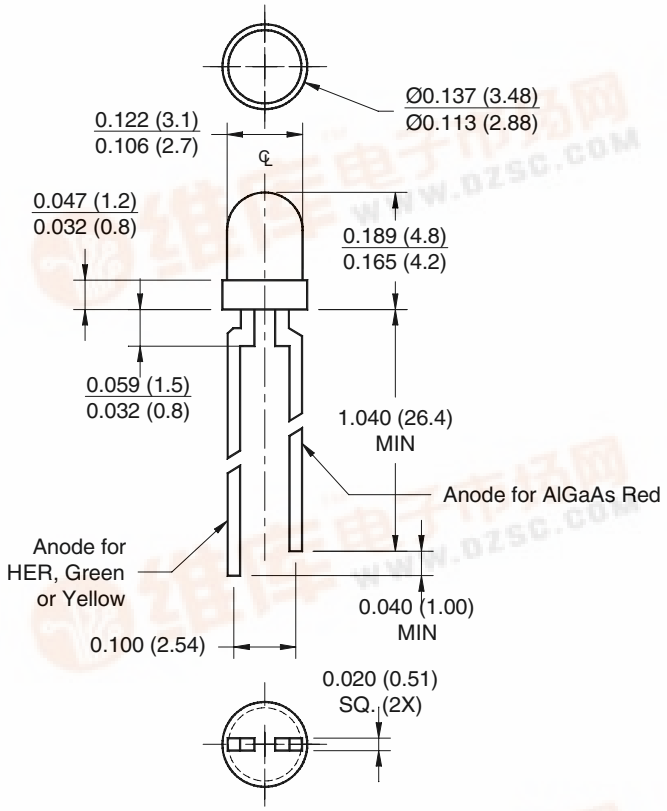
FAIRCHILD
SEMICONDUCTOR™

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

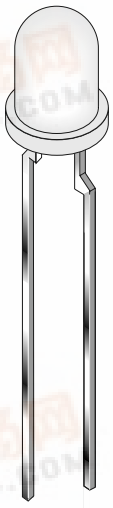
HER / AlGaAs RED	MV6661A
GREEN / AlGaAs RED	MV6461A
YELLOW / AlGaAs RED	MV6361A

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

FAIRCHILD
SEMICONDUCTOR™

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

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

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

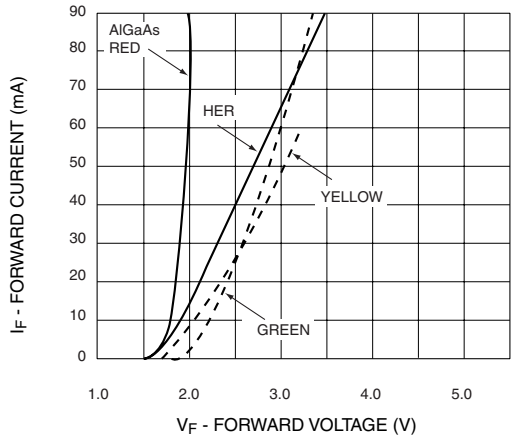


Fig. 1 Forward Current vs. Forward Voltage

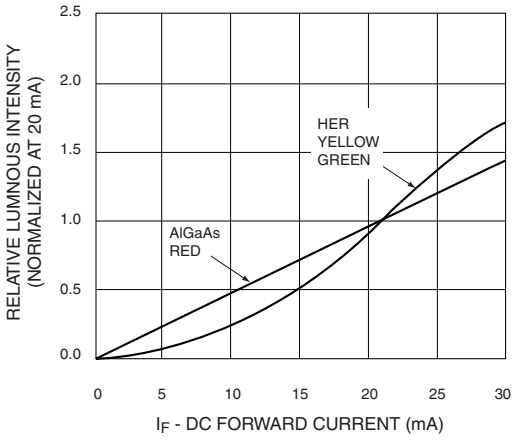


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

FAIRCHILD
SEMICONDUCTOR™

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

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

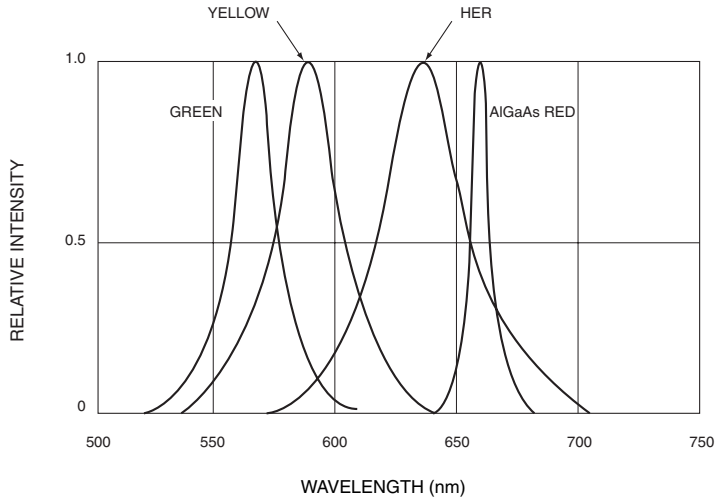


Fig. 3 Relative Intensity vs. Peak Wavelength

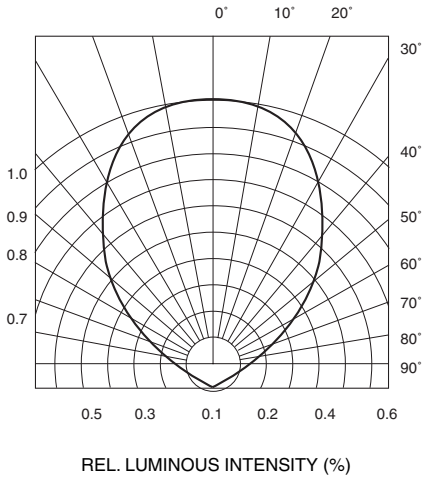


Fig. 4 Radiation Diagram

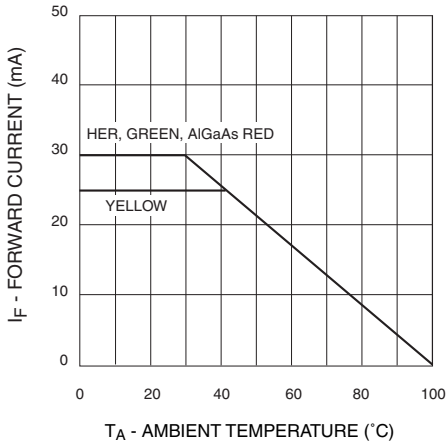


Fig. 5 Current Derating Curve

FAIRCHILD
SEMICONDUCTOR™

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

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