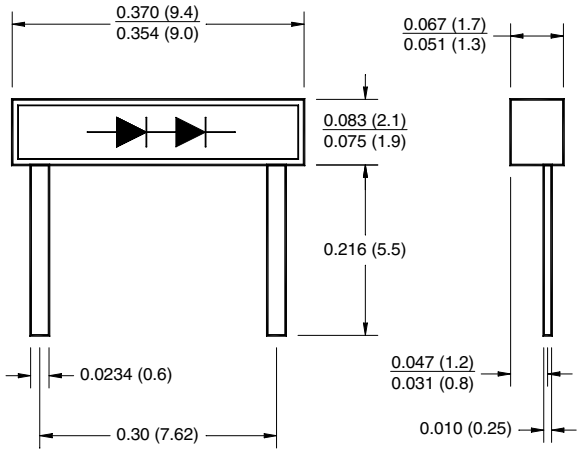
FAIRCHILD
SEMICONDUCTOR™

SOLID STATE LED LAMPS
LCD BACKLIGHT ILLUMINATOR

YELLOW	MV942-3 Clear
GREEN	MV942-4 Clear
ORANGE	MV942-8 Clear
HER	MV942-9 Clear

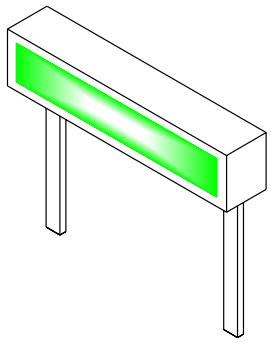
PACKAGE DIMENSIONS



NOTE:
1. Dimensions are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5mm (0.059") max.
4. Tolerance is +/-0.12" (0.3mm) unless otherwise noted.

FEATURES

- Low power consumption
- Uniform lighting across entire bar



DESCRIPTION

These right angle bar illuminators have two chips connected in series. They are housed in a 2mm x 9mm white rectangular molded reflector case with a clear epoxy lens.

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

Parameter	YELLOW MV942-3	GREEN MV942-4	ORANGE MV942-8	HER MV942-9	Units
Continuous Forward Current - I_F	20	30	30	30	mA
Peak Forward Current - I_F (f = 1.0 KHz, Duty Factor = 1/10)	160	160	160	160	mA
Reverse Voltage - V_R (I_R = 10 µA)	5	5	5	5	V
Power Dissipation - P_D	85	100	100	100	mW
Operating Temperature - T_{OPR}	-40 to +85				°C
Storage Temperature - T_{STG}	-40 to +100				°C
Lead Soldering Time - T_{SOL}					°C
Wave	260 for 5 sec				
Reflow	240 for 5 sec				

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ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	YELLOW MV942-3	GREEN MV942-4	ORANGE MV942-8	HER MV942-9	Condition
Luminous Intensity (mcd)					I_F = 20mA
Minimum	30	30	30	35	
Typical	45	45	45	45	
Forward Voltage (V)					I_F = 20mA
Maximum	5.6	5.6	5.6	5.6	
Typical	4.2	4.2	4.2	4.2	
Peak Wavelength (nm)	585	565	610	635	I_F = 20mA
Spectral Line Half Width (nm)	35	30	35	45	I_F = 20mA
Viewing Angle (°)	160	160	160	160	I_F = 20mA

TYPICAL PERFORMANCE CURVES

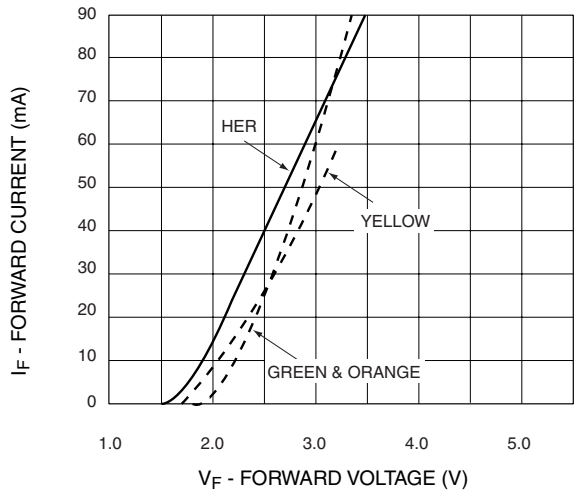

Fig. 1 Forward Current vs. Forward Voltage

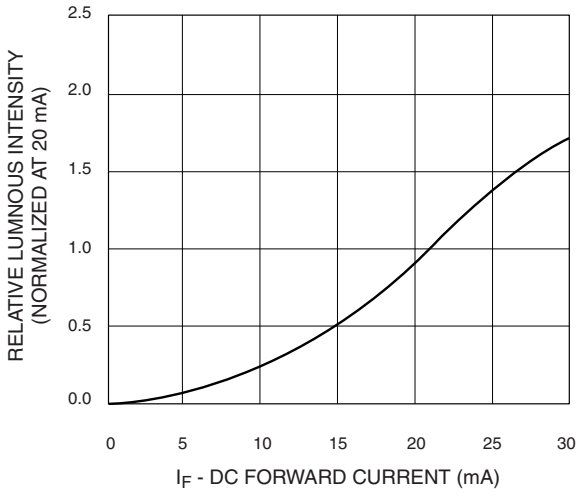

Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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TYPICAL PERFORMANCE CURVES

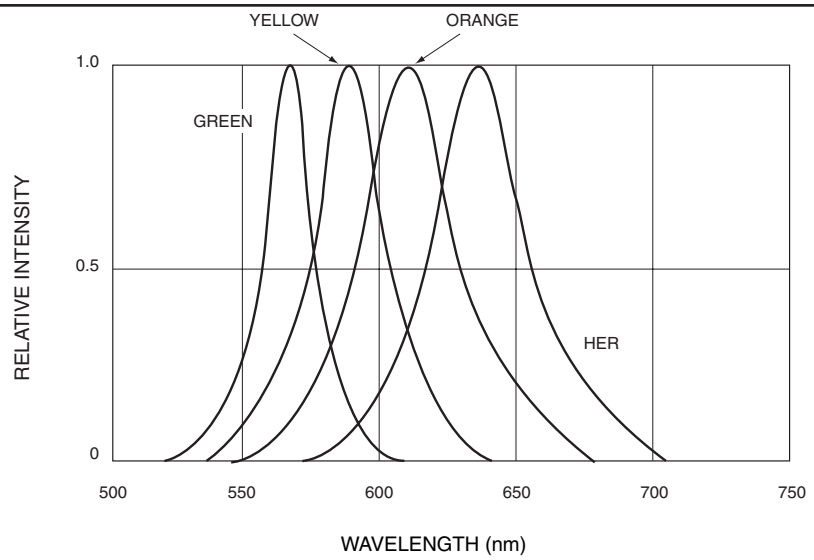

Fig. 3 Relative Intensity vs. Peak Wavelength

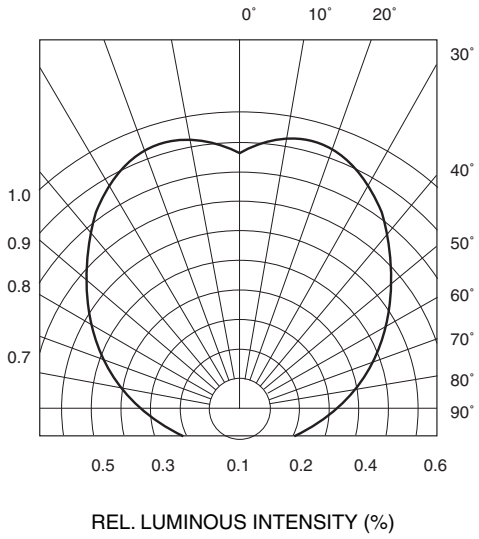

Fig. 4 Radiation Diagram

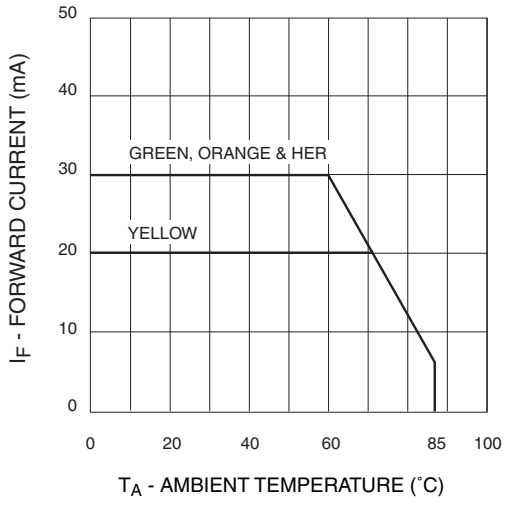

Fig. 5 Current Derating Curve

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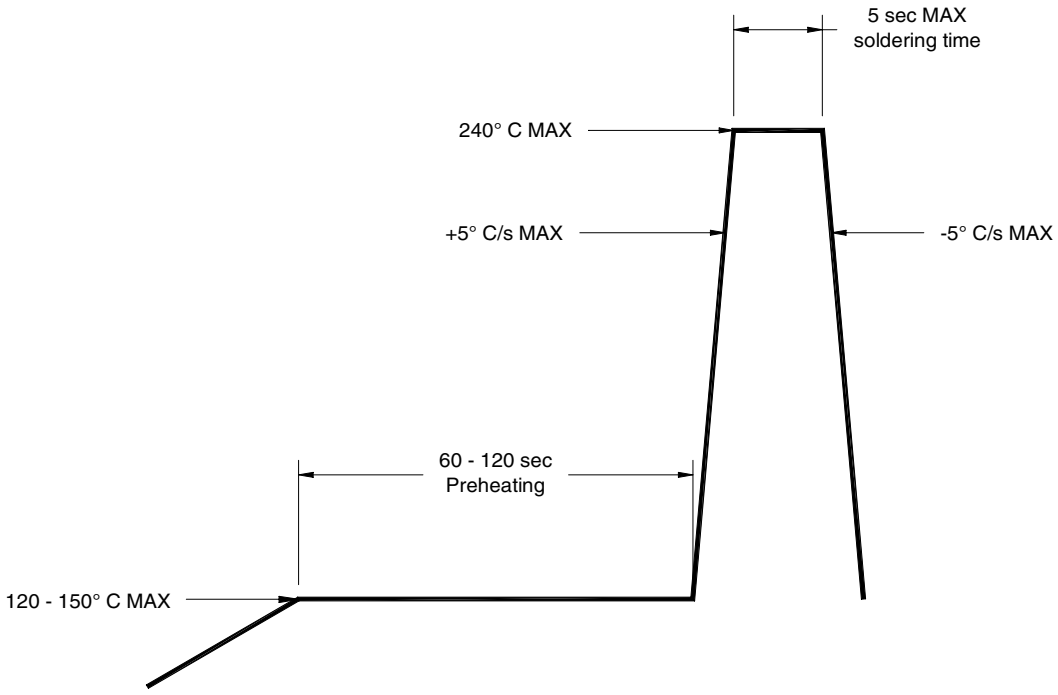
RECOMMENDED IR REFLOW SOLDERING PROFILE



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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.