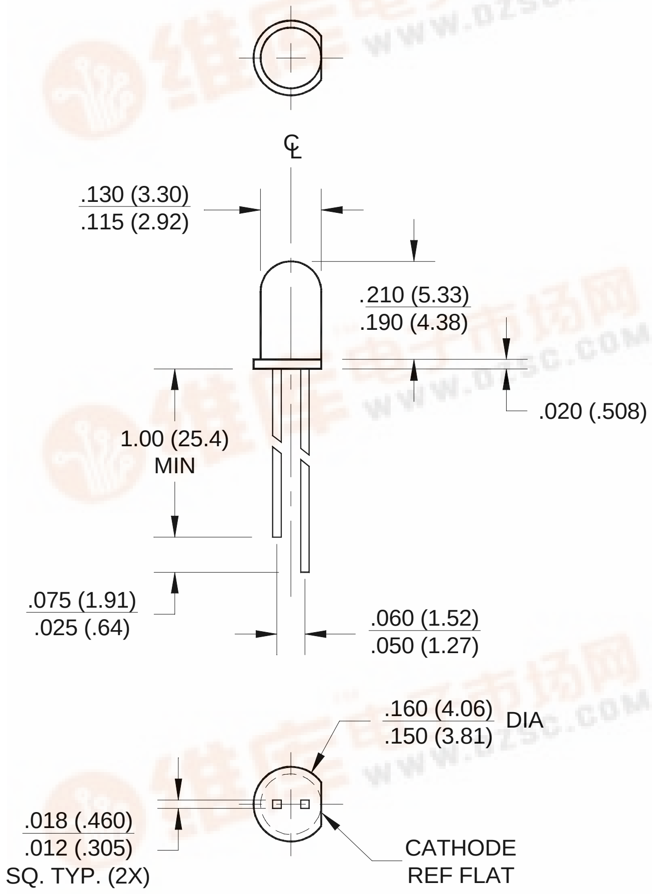
FAIRCHILD
SEMICONDUCTOR®

T-1
SOLID STATE LAMPS

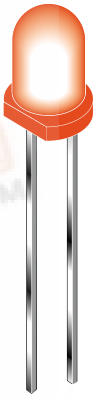
RED DIFFUSED	**MV5074C**	**RED DIFFUSED**	**MV5075C**
YELLOW DIFFUSED	**MV5374C**	**GREEN DIFFUSED**	**MV5474C**
HER DIFFUSED	**MV5774C**		

PACKAGE DIMENSIONS



FEATURES

- Copper leads
- Solid-state reliability



DESCRIPTION

These solid state indicators offer a variety of color selection. The High Efficiency Red, Green and Yellow devices are made with a gallium arsenide phosphide LED on gallium phosphide substrate. All are encapsulated in epoxy packages. Their small size (approximately T-1 size), good viewing angle, and small square leads contribute to their versatility as all purpose indicators.

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ABSOLUTE MAXIMUM RATING (T_A =25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Units
Power Dissipation	P_D	105	mW
Derate linearly from 25°C		-1.14	mW/°C
Continuous Forward Current (MV5374C=20 mA)	I_F	35	mA
Peak Forward Current - (µsec pulse 0.3% duty cycle) (MV5474C=90 mA) (MV5374C=60 mA)	I_{FM}	35	mA
Reverse Voltage (I_R = 100 µA)	V_R	5	V
Lead Soldering Time at 260°C (See Note 1)	T_{SOL}	5	sec
Operating Temperature	T_{OPR}	-55 to +100	°C
Storage Temperature	T_{STG}	-55 to +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	Symbol	MV5074C	MV5075C	MV5374C	MV5474C	MV5774C	Condition
Luminous Intensity (mcd)							I_F = 20mA
Minimum	I_V	0.7	0.6	1.5	1.2	1.5	
Typical		2.5	1.5	9.0	9.0	9.0	
Forward Voltage (V)							I_F = 20mA
Typical	V_F	1.6	1.6	2.1	2.2	2.0	
Maximum		2.0	2.0	3.0	3.0	3.0	
Spectral Line Half Width (nm)		20	20	35	35	45	I_F = 20mA
Peak Wavelength (nm)	λp	660	660	585	565	635	I_F = 20mA
Reverse Current (µA)							V_R = 5.0V
Maximum		100	100	100	100	100	
Viewing Angle (Total) (°)	2θ 1/2	70	90	90	90	90	See Fig. 3

1. The leads of the device were immersed in molten solder at 260°C, to a point 1/16 inch (1.6 mm) from the body of the device per MIL-S-750, with a dwell time of 5 seconds.

TYPICAL PERFORMANCE CURVES (T_A =25°C)

Fig. 1 Forward Current vs. Forward Voltage

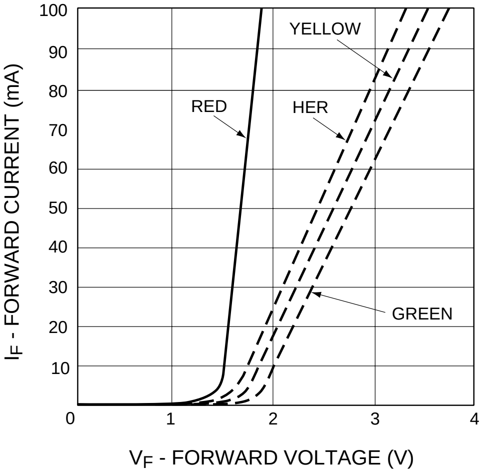


Fig. 2 Luminous Intensity vs. Forward Current

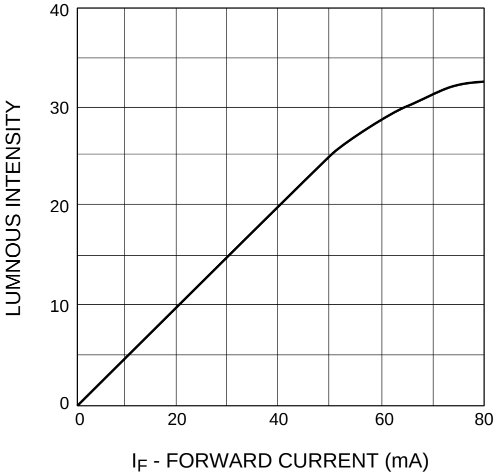


Fig. 3 Spatial Distribution

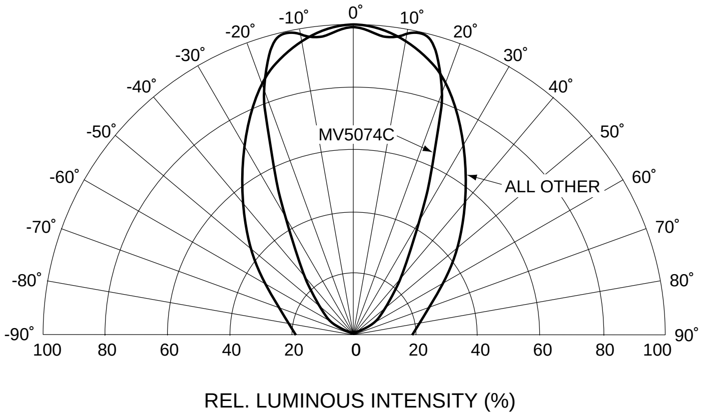
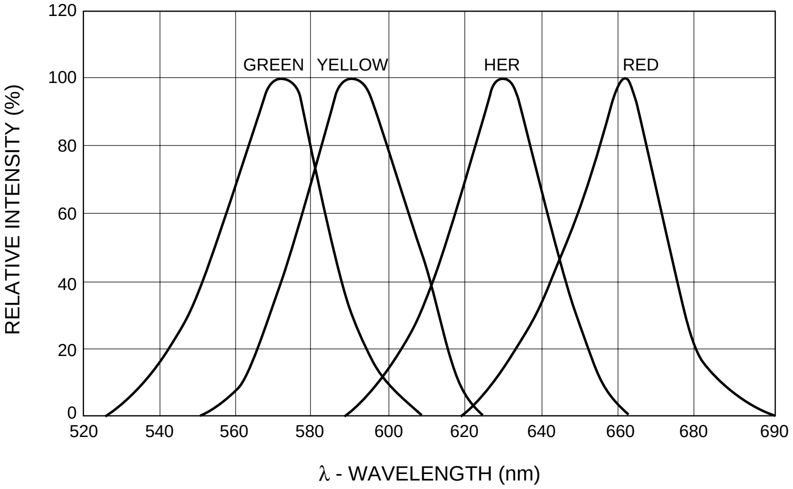


Fig. 4 Relative Intensity vs. Peak Wavelength



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