

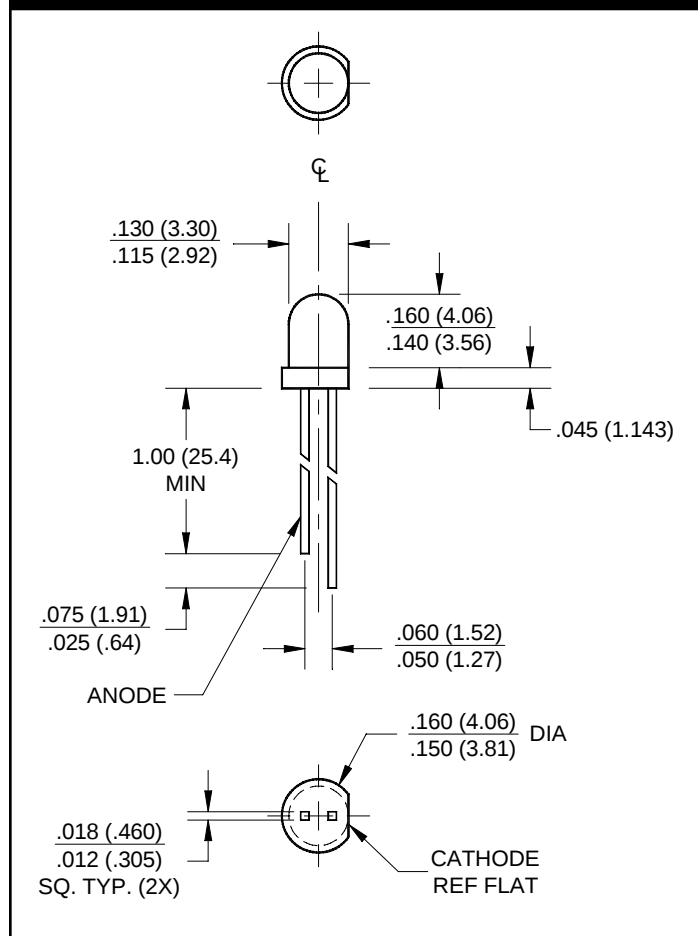
RED DIFFUSED
GREEN DIFFUSED

MV5077C
MV5477C

YELLOW DIFFUSED
HER DIFFUSED

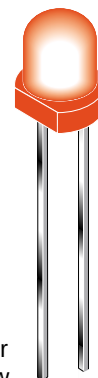
MV5377C
MV5777C

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 low profile, small size (approximately T-1 size), good viewing angle, and small square leads contribute to their versatility as all purpose indicators.

ABSOLUTE MAXIMUM RATING ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)

Parameter	Symbol	Rating	Units
Power Dissipation Derate linearly from 25°C	P_D	105 -1.14	mW mW/ $^\circ\text{C}$
Continuous Forward Current (MV5377C)	I_F	35	mA
Peak Forward Current - (μsec pulse 0.3% duty cycle) (MV5477C=90 mA) (MV5377C=60 mA)	I_{FM}	35	mA
Reverse Voltage ($I_R = 100 \mu\text{A}$)	V_R	5	V
Lead Soldering Time at 260°C (See Note 1)	T_{SOL}	5	sec
Operating Temperature	T_{OPR}	-55 to +100	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +100	$^\circ\text{C}$

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Part Number	Symbol	MV5077C	MV5377C	MV5477C	MV5777C	Condition
Luminous Intensity (mcd)						$I_F = 20\text{mA}$
Minimum	I_V	0.3	1.0	1.0	1.0	
Typical		1.8	7.0	7.0	7.0	
Forward Voltage (V)						$I_F = 20\text{mA}$
Typical	V_F	1.6	2.1	2.2	2.0	
Maximum		2.0	3.0	3.0	3.0	
Spectral Line Half Width (nm)		20	35	35	45	$I_F = 20\text{mA}$
Peak Wavelength (nm)	λ_p	660	585	565	635	$I_F = 20\text{mA}$
Viewing Angle (Total) ($^\circ$)	2θ 1/2	140	140	140	140	$I_F = 20\text{mA}$

- 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 ($T_A = 25^\circ\text{C}$)

Fig. 1 Forward Current vs. Forward Voltage

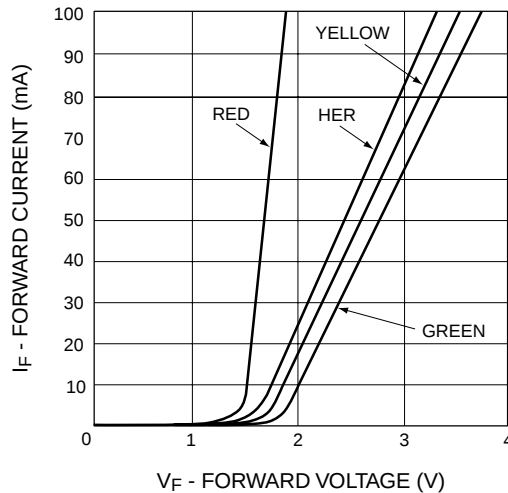


Fig. 2 Luminous Intensity vs. Forward Current

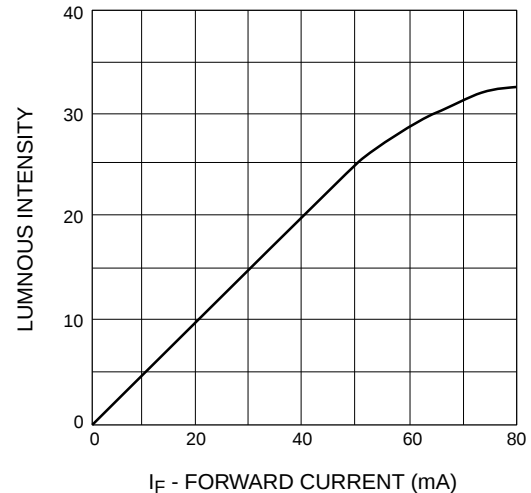


Fig. 3 Spatial Distribution

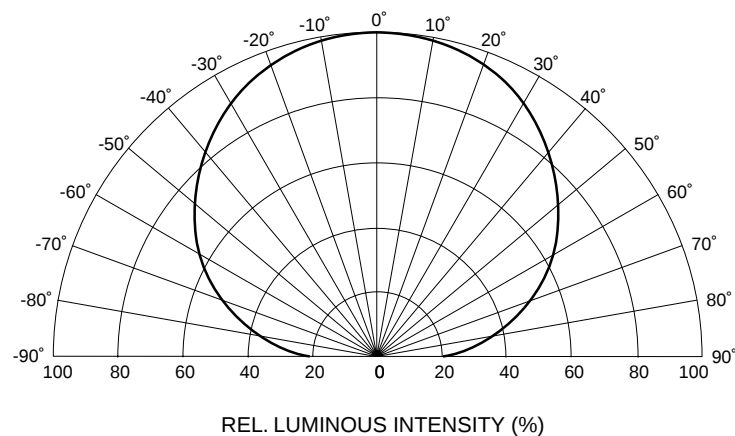
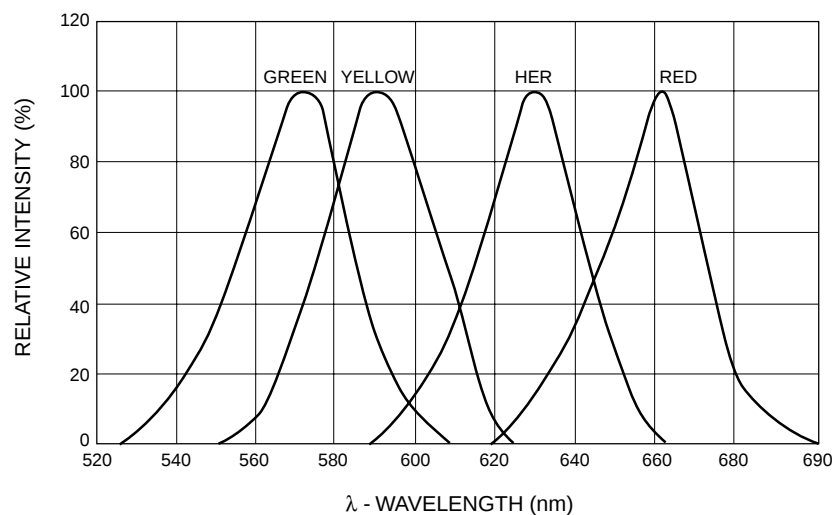


Fig. 4 Relative Intensity vs. Peak Wavelength



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