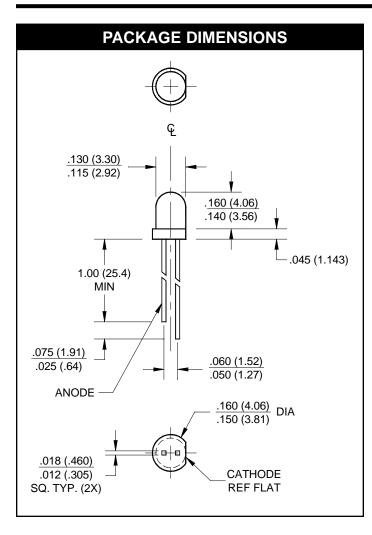


RED DIFFUSED
GREEN DIFFUSED

MV5077C MV5477C YELLOW DIFFUSED HER DIFFUSED

MV5377C MV5777C



#### **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.



Parameter	Symbol	Rating	Units
Power Dissipation	D	105	mW
Derate linearly from 25°C	$P_{D}$	-1.14	mW/°C
Continuous Forward Current (MV5377C)	I <sub>F</sub>	35	mA
Peak Forward Current - (μsec pulse 0.3% duty cycle) (MV5477C=90 mA) (MV5377C=60 mA)	I <sub>FM</sub>	35	mA
Reverse Voltage (I <sub>R</sub> = 100 μA)	V <sub>R</sub>	5	V
Lead Soldering Time at 260°C (See Note 1)	T <sub>SOL</sub>	5	sec
Operating Temperature	T <sub>OPR</sub>	-55 to +100	°C
Storage Temperature	T <sub>STG</sub>	-55 to +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)									
Part Number	Symbol	MV5077C	MV5377C	MV5477C	MV5777C	Condition			
Luminous Intensity (mcd)						$I_F = 20mA$			
Minimum	I <sub>V</sub>	0.3	1.0	1.0	1.0				
Typical		1.8	7.0	7.0	7.0				
Forward Voltage (V)						$I_F = 20mA$			
Typical	V <sub>F</sub>	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	$I_F = 20mA$			
Peak Wavelength (nm)	λр	660	585	565	635	IF = 20mA			
Viewing Angle (Total) (°)	2θ 1/2	140	140	140	140	IF = 20mA			

<sup>1.</sup> 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 (TA =25°C)

Fig. 1 Forward Current vs. Forward Voltage

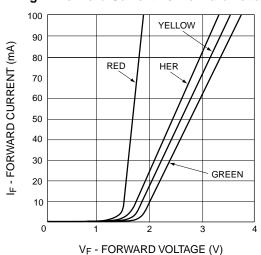


Fig. 2 Luminous Intensity vs. Forward Current

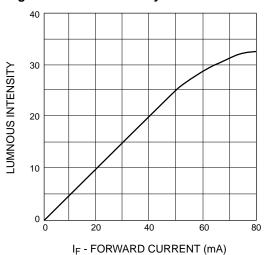
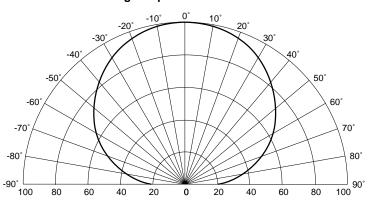
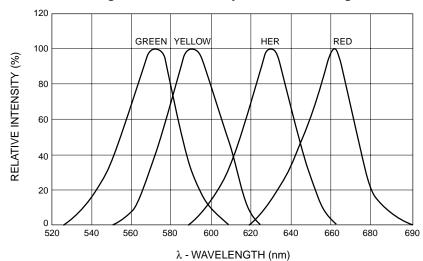


Fig. 3 Spatial Distribution



REL. LUMINOUS INTENSITY (%)

Fig. 4 Relative Intensity vs. Peak Wavelength





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- 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.