

RED DIFFUSED MV5074C YELLOW DIFFUSED MV5374C HER DIFFUSED MV5774C

GREEN DIFFUSED

MV5474C

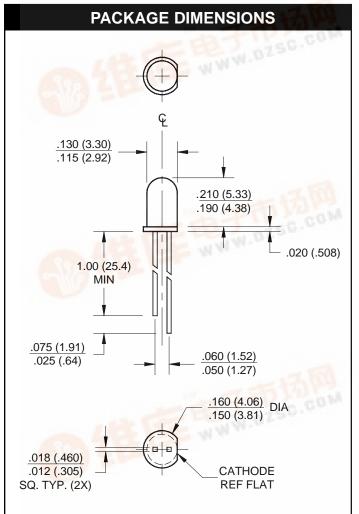
FEATURES

- · 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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T-1 SOLID STATE LAMPS

SEMICONDUCTOR®

Parameter	Symbol	Rating	Units	
Power Dissipation	P	105	mW	
Derate linearly from 25°C	P _D	-1.14	mW/°C	
Continuous Forward Current (MV5374C=20 mA)	I _F	35	mA	
Peak Forward Current - (µsec pulse 0.3% duty cycle)			mA	
(MV5474C=90 mA) (MV5374C=60 mA)	IFM	35		
Reverse Voltage ($I_R = 100 \ \mu A$)	V _R	5	V	
Lead Soldering Time at 260°C (See Note 1)	T _{SOL}	5	sec	
Operating Temperature	T _{OPR}	-55 to +100	°C	
Storage Temperature	T _{STG}	-55 to +100	°C	

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)									
Part Number	Symbol	MV5074C	MV5075C	MV5374C	MV5474C	MV5774C	Condition		
Luminous Intensity (mcd)							I _F = 20mA		
Minimum	Iv	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	VF	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)	λρ	660	660	585	565	635	IF = 20mA		
Reverse Current (µA)							V _R = 5.0V		
Maximum		100	100	100	100	100			
Viewing Angle (Total) (°)	20 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.

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T-1 SOLID STATE LAMPS

TYPICAL PERFORMANCE CURVES (T_A =25°C)

Fig. 1 Forward Current vs. Forward Voltage

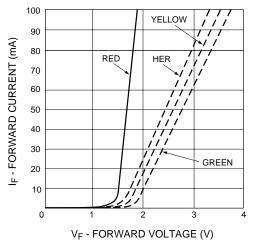


Fig. 2 Luminous Intensity vs. Forward Current

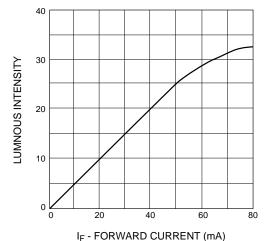
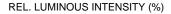


Fig. 3 Spatial Distribution 0 10 -10 -20 20 -30 30 -40 50 -50 MV5074C -60° 60° ALL OTHER -70 70° -80 80° -90° └─ 100 ____ 90° 100 80 40 60 80 60 40 20 0 20



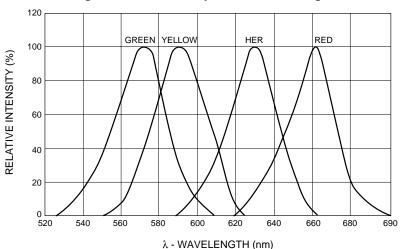


Fig. 4 Relative Intensity vs. Peak Wavelength



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