

SEMICONDUCTOR®

RED DIFFUSED

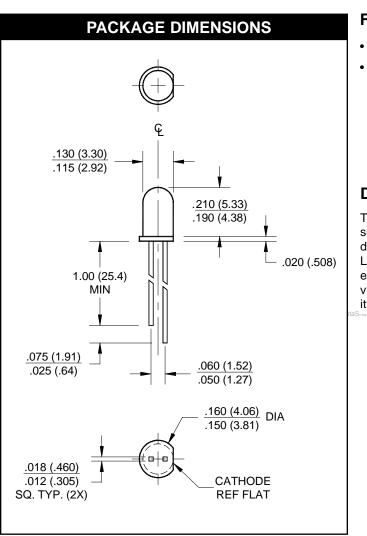
HER DIFFUSED

YELLOW DIFFUSED

T-1 SOLID STATE LAMPS

RED DIFFUSED M GREEN DIFFUSED M

MV5075C MV5474C



MV5074C

MV5374C

MV5774C

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.

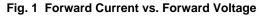
Parameter	Symbol	Rating	Units
Power Dissipation	Р	105	mW
Derate linearly from 25°C	P _D	-1.14	mW/°C
Continuous Forward Current (MV5374C=20 mA)	l _F	35	mA
Peak Forward Current - (μsec pulse 0.3% duty cycle) (MV5474C=90 mA) (MV5374C=60 mA)	I _{FM}	35	mA
Reverse Voltage ($I_R = 100 \ \mu A$)	V _R	5	V
Lead 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

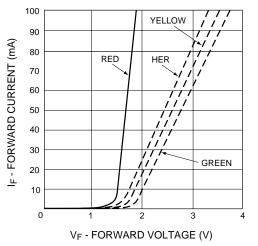
ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)									
Part Number	Symbol	MV5074C	MV5075C	MV5374C	MV5474C	MV5774C	Condition		
Luminous Intensity (mcd)							$I_F = 20 mA$		
Minimum	I _V	0.7	0.6	1.5	1.2	1.5			
Typical		2.5	1.5	9.0	9.0	9.0			
Forward Voltage (V)							$I_F = 20 mA$		
Typical	V _F	1.6	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	$I_F = 20 mA$		
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.



TYPICAL PERFORMANCE CURVES (TA =25°C)





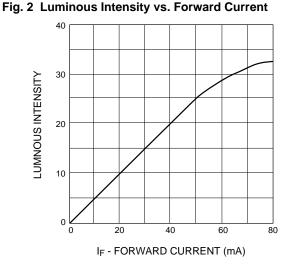
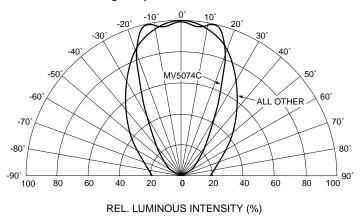


Fig. 3 Spatial Distribution



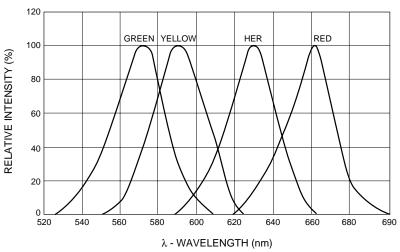


Fig. 4 Relative Intensity vs. Peak Wavelength



DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

- Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body,or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in labeling, can be reasonably expected to result in a significant injury of the user.
- 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.