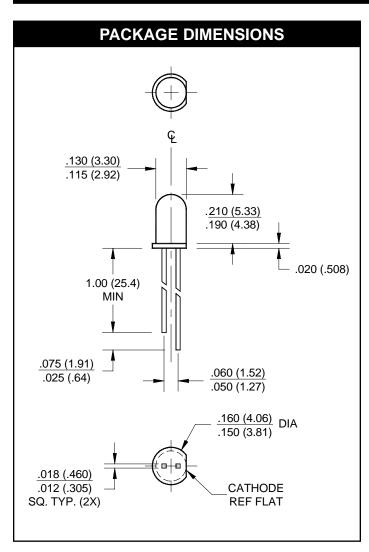


T-1 SOLID STATE LAMPS

RED DIFFUSED YELLOW DIFFUSED HER DIFFUSED MV5074C MV5374C MV5774C RED DIFFUSED
GREEN DIFFUSED

MV5075C 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

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.



T-1 SOLID STATE LAMPS

Parameter	Symbol	Rating	Units	
Power Dissipation	D	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)	I _{FM}	35	mA	
(MV5474C=90 mA) (MV5374C=60 mA)	·FIVI			
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	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)	λр	660	660	585	565	635	IF = 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.



DS300037

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T-1 SOLID STATE LAMPS

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TYPICAL PERFORMANCE CURVES (TA =25°C)

Fig. 1 Forward Current vs. Forward Voltage

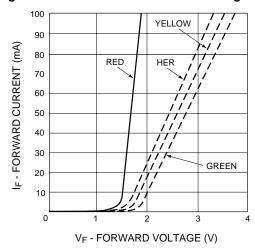


Fig. 2 Luminous Intensity vs. Forward Current

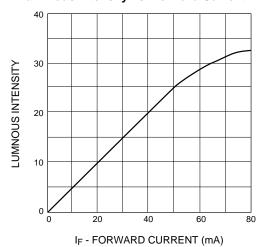


Fig. 3 Spatial Distribution

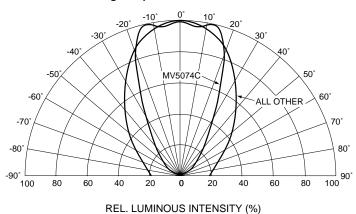
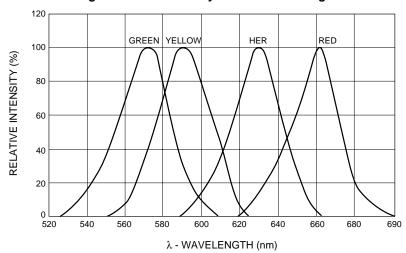


Fig. 4 Relative Intensity vs. Peak Wavelength



3 OF 4



T-1 SOLID STATE LAMPS

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