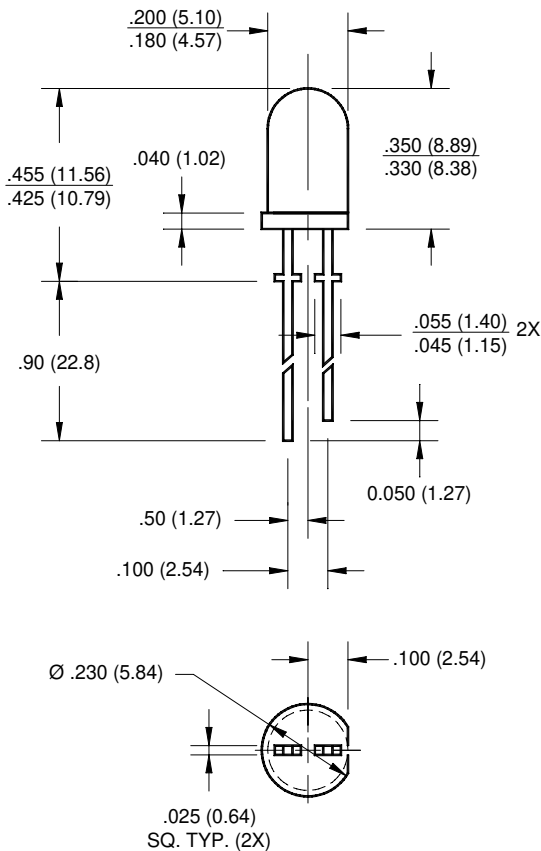


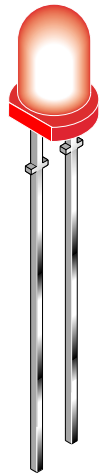
**RED MR3050/MR3051 TINTED**  
**HIGH EFFICIENCY RED MR3750/MR3751 TINTED**  
**YELLOW MR3350/MR3351 TINTED**  
**GREEN MR3450/MR3451 TINTED**

## PACKAGE DIMENSIONS



## FEATURES

- Integral current limiting resistor (No external resistor required)
- Operates with 5 volt & 12 volt supplies
- Wide viewing angle
- Solid state reliability



## DESCRIPTION

These T-1 3/4 LED lamps contain an integral resistor. Operation at 5 volts (MR3X50) or 12 volts (MR3X51) is possible without the use of an external current limiting resistor. The epoxy lens is tinted and diffused to provide color identification and a wide viewing angle.

## NOTES:

ALL DIMENSIONS ARE IN INCHES (mm).

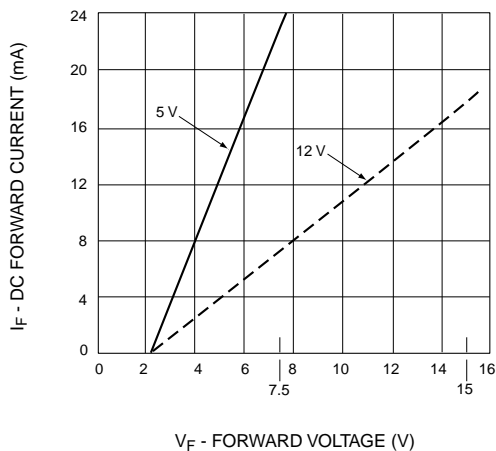
**ABSOLUTE MAXIMUM RATING** (T<sub>A</sub> =25°C)

Parameter	RED/HER/YELLOW	RED/HER/YELLOW	GREEN	GREEN	UNITS
	5 VOLT LAMPS	12 VOLT LAMPS	5 VOLT LAMPS	12 VOLT LAMPS	
DC Forward Current	7.5	15	7.5	15	mA
Lead Soldering Time at 260° C	5	5	5	5	sec
Reverse Breakdown Voltage	5.0	5.0	5.0	5.0	I <sub>R</sub> = 100μA
Operating Temperature	-40 to +100	-40 to +100	-20 to +100	-20 to +100	°C
Storage Temperature	-55 to +100	-55 to +100	-50 to +100	-50 to +100	°C

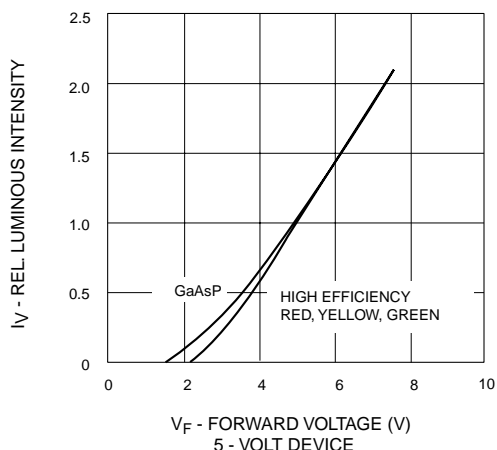
**ELECTRICAL / OPTICAL CHARACTERISTICS** (T<sub>A</sub> =25°C)

Parameter	RED	HER	YELLOW	GREEN	Condition
	MR3050/1	MR3750/1	MR3350/1	MR3450/1	
Luminous Intensity (mcd)					V <sub>F</sub> = 5V / V <sub>F</sub> = 12V
Minimum	1.0	1.5	1.5	1.5	
Typical	2.0	4.0	4.0	4.0	
Forward Current (mA)					V <sub>F</sub> = 5V / V <sub>F</sub> = 12V
Typical	13/13	10/13	10/13	12/13	
Maximum	20/20	15/20	15/20	15/20	
Peak Wavelength (nm)	660	635	585	565	V <sub>F</sub> = 5V / V <sub>F</sub> = 12V
Spectral Line Half Width (nm)	24	40	36	28	V <sub>F</sub> = 5V / V <sub>F</sub> = 12V
Viewing Angle (°)	60	60	60	60	V <sub>F</sub> = 5V / V <sub>F</sub> = 12V

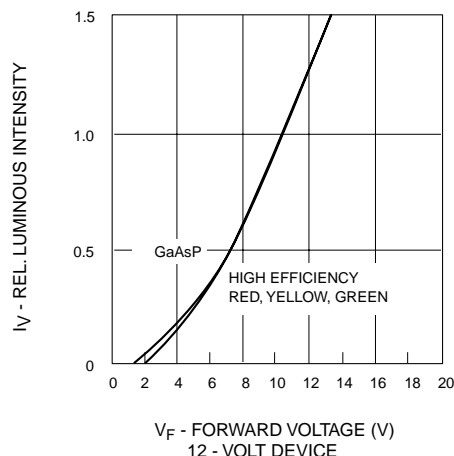
**TYPICAL PERFORMANCE CURVES ( $T_A = 25^\circ\text{C}$ )**



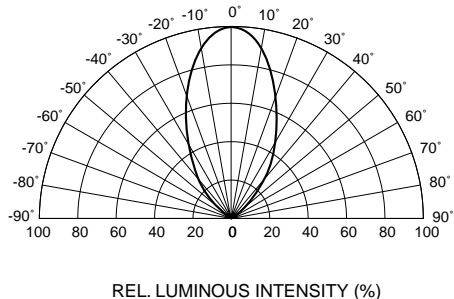
**Fig. 1 I - V Curve**



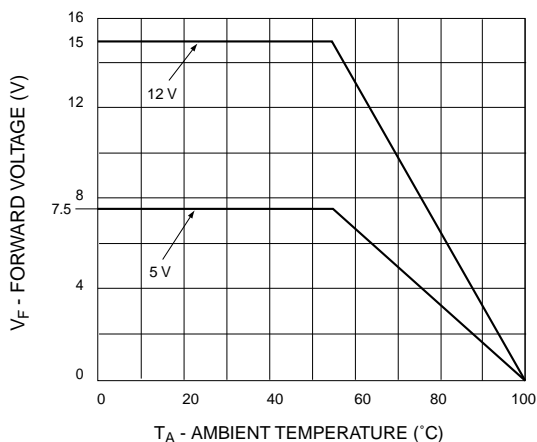
**Fig. 2A Luminous Intensity vs Forward Voltage**



**Fig. 2B Luminous Intensity vs Forward Voltage**



**Fig. 3 Radiation Diagram**



**Fig. 4 Maximum Allowed Forward Voltage vs Ambient Temperature**

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