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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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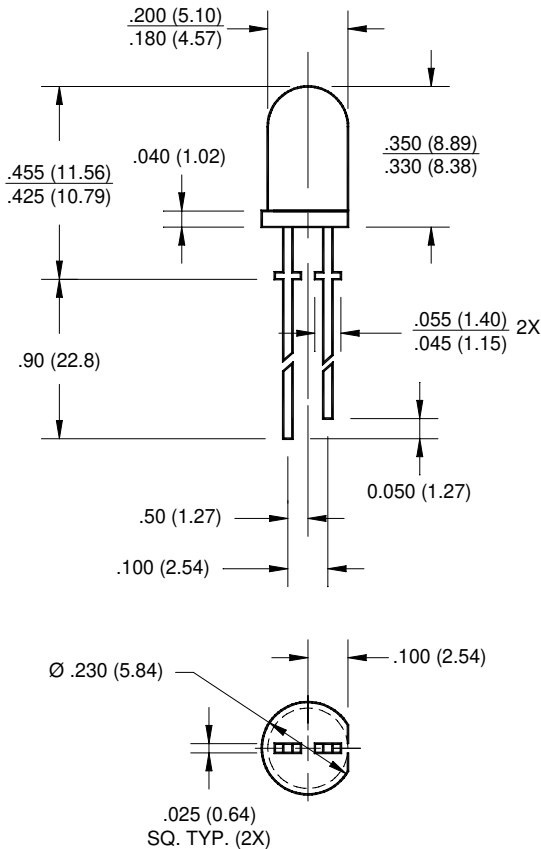
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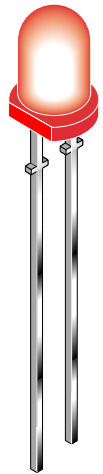
**RED MR3050/MR3051 TINTED  
HIGH EFFICIENCY RED MR3750/MR3751 TINTED  
YELLOW MR3350/MR3351 TINTED  
GREEN MR3450/MR3451 TINTED**

**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).

# INTEGRATED T-1 3/4 RESISTOR LAMPS

## 5 VOLT AND 12 VOLT SERIES

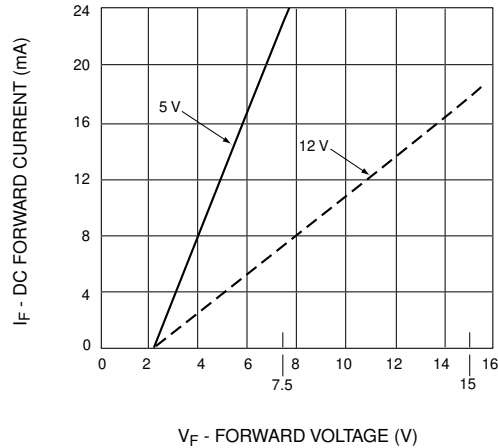
### ABSOLUTE MAXIMUM RATING (T<sub>A</sub> =25°C)

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

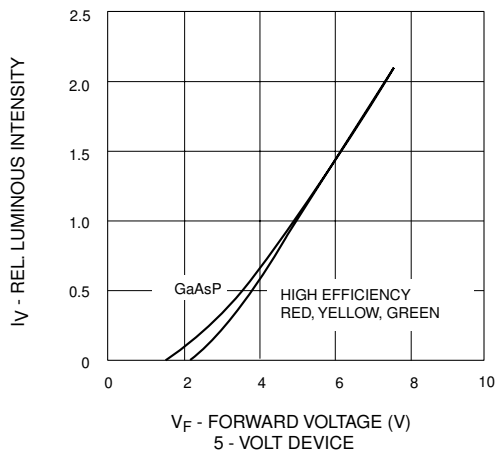
### ELECTRICAL / OPTICAL CHARACTERISTICS (T<sub>A</sub> =25°C)

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

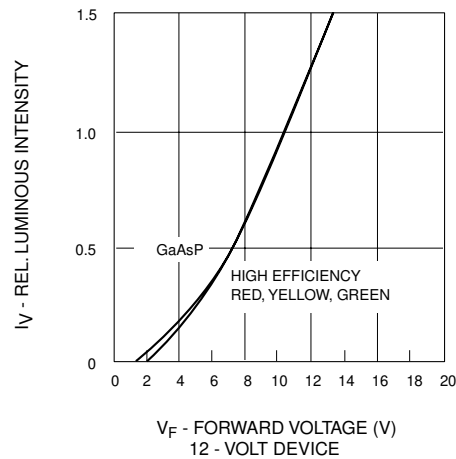
**TYPICAL PERFORMANCE CURVES ( $T_A = 25^\circ\text{C}$ )**



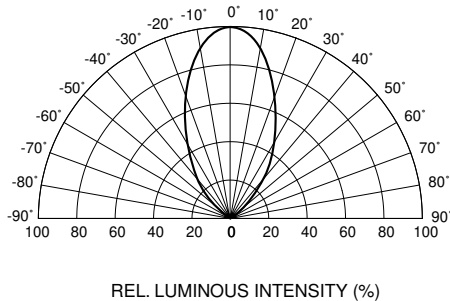
**Fig. 1 I - V Curve**



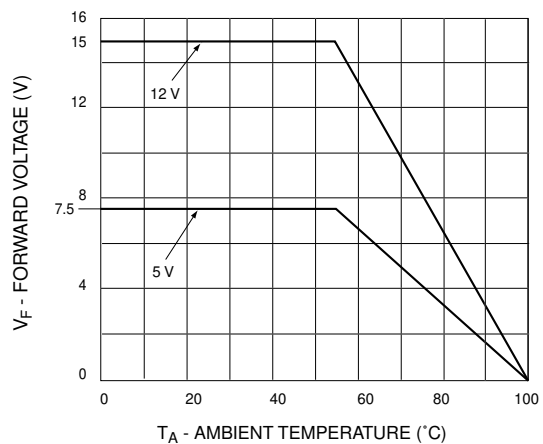
**Fig. 2A Luminous Intensity vs Forward Voltage**



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



**Fig. 3 Radiation Diagram**



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



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