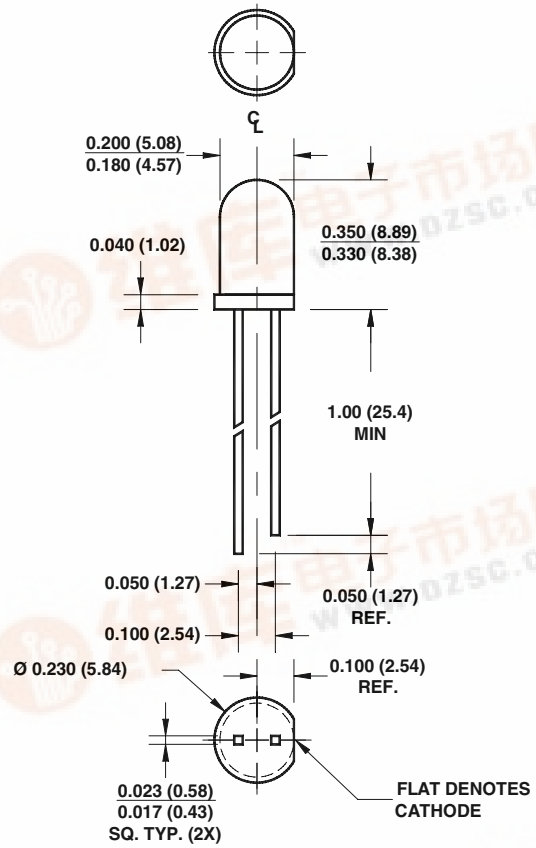
FAIRCHILD
SEMICONDUCTOR™

SUPER BRIGHT T-1 3/4 (5 mm)
LED LAMP - Water Clear

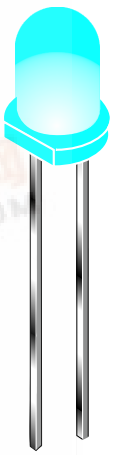
SUPER BLUE-GREEN MV8G0X
MV8G01
MV8G03

PACKAGE DIMENSIONS



NOTES:

1. Dimensions for all drawings are in inches (mm).
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under the flange is 1.5 mm (0.059") max.



FEATURES

- Popular T-1 3/4 package
- Super high brightness suitable for outdoor applications
- Solid state reliability
- Water clear optics
- Standard 100 mil. lead spacing

DESCRIPTION

This T-1 3/4 super bright LED has a moderate viewing angle of 20° for concentrated light output. It is made with an InGaN LED that emits blue-green light at 502 nm. It is encapsulated in a water clear epoxy lens package.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Operating Temperature	T_{OPR}	-20 to +80	°C
Storage Temperature	T_{STG}	-30 to +100	°C
Lead Soldering Time	T_{SOL}	260 for 5 sec	°C
Continuous Forward Current	I_F	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_F	150	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	120	mW

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ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	MV8G01	MV8G03	Condition
Luminous Intensity (mcd)			I_F = 20 mA
Minimum	1500	3000	
Typical	1900	3500	
Forward Voltage (V)			I_F = 20 mA
Maximum	4.2	4.2	
Typical	3.6	3.6	
Wavelength (nm)			I_F = 20 mA
Peak	502		
Dominant	505		
Spectral Line Half Width (nm)	40		I_F = 20 mA
Viewing Angle (°)	20		I_F = 20 mA

TYPICAL PERFORMANCE CURVES

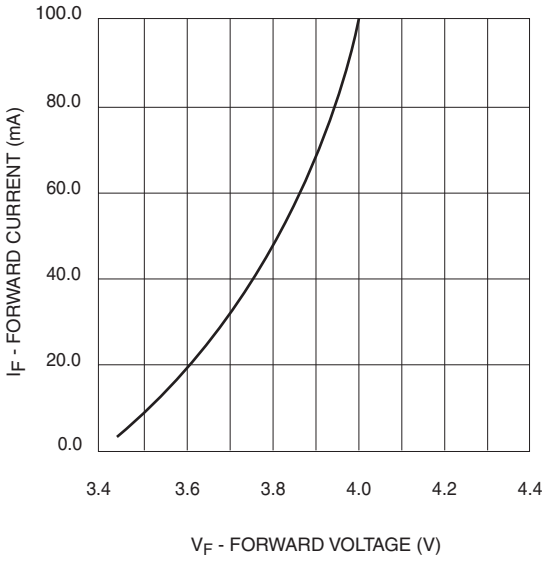

Fig. 1 Forward Current vs. Forward Voltage

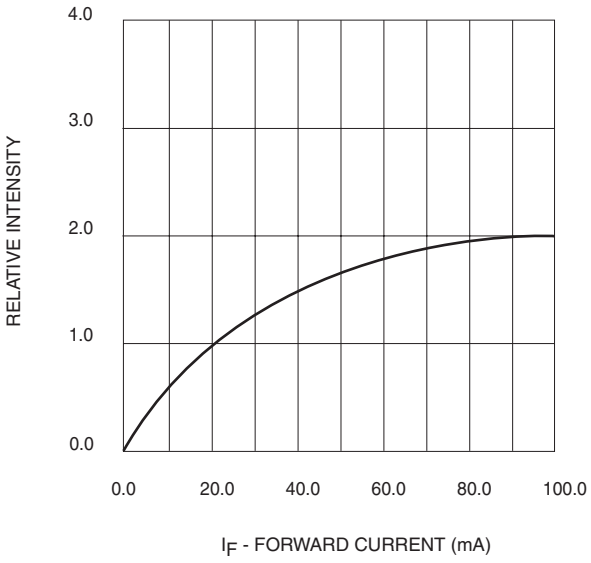

Fig. 2 Relative Luminous Intensity vs. Forward Current

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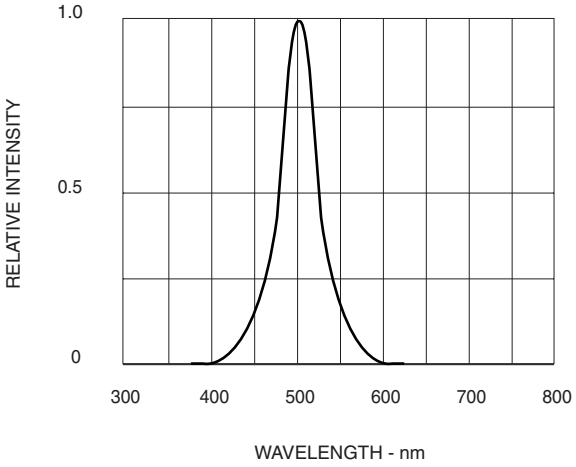

Fig. 3 Relative Luminous Intensity vs. Wavelength

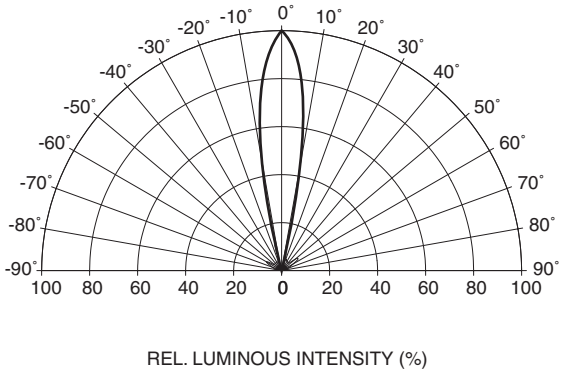

Fig. 4 Radiation Diagram

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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.