

# T-1 3/4 PACKAGE SOLID STATE LAMP

# MVL-591G

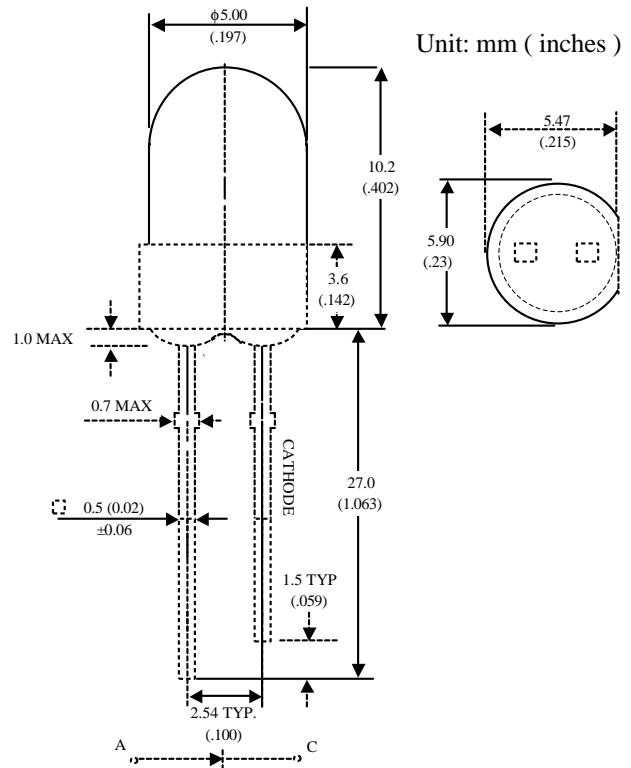
## Description

The MVL-591G LED lamp is made with Gallium Phosphide on Gallium Phosphide green light emitting diode .  
The package is T-1 3/4 (5mm) green diffused plastic lens type with thick flange.

## Features

- High Intensity.
- Popular T-13/4 diameter package.
- Selected minimum intensities.
- General purpose leads .
- Reliable and rugged .

## Package Dimensions



Notes :

1. Tolerance is  $\pm 0.25$  mm (.010" ) unless otherwise noted.
2. Protruded resin under flange is 1.0 mm (.040" ) max.
3. Lead spacing is measured where the leads emerge from the package.

## Absolute Maximum Ratings

@  $T_A=25^\circ\text{C}$

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	$P_{ad}$	100	mW
Peak Forward Current (1/10 Duty Cycle 0.1ms pulse width)	$I_{pf}$	120	mA
Continuous Forward Current	$I_{af}$	30	mA
Derating Linear From 25°C		0.4	mA/°C
Reverse Voltage	$V_R$	5	V
Operating Temperature Range	$T_{opr}$	-55°C to +100°C	
Storage Temperature Range	$T_{stg}$	-55°C to +100°C	
Lead Soldering Temperature (1.6 mm from body) for 3 seconds at 260°C			

## Optical-Electrical Characteristics

@ T<sub>A</sub>=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I <sub>F</sub> =10mA	I <sub>V</sub>	7	24	-	mcd
Forward Voltage	I <sub>F</sub> =20mA	V <sub>F</sub>	-	2.1	2.8	V
Reverse Current	V <sub>R</sub> =5V	I <sub>R</sub>	-	-	100	μA
Peak Emission Wavelength	I <sub>F</sub> =20mA	λ <sub>p</sub>	-	565	-	nm
Spectral Line Half Width	I <sub>F</sub> =20mA	Δλ	-	30	-	nm
Viewing Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>	-	45	-	deg.

## Typical Optical-Electrical Characteristic Curves

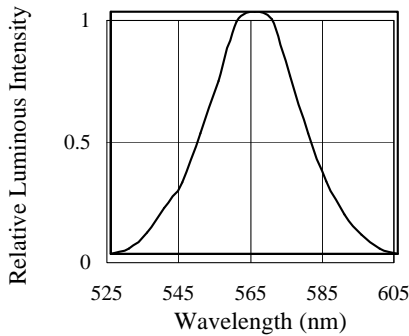


FIG.1 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

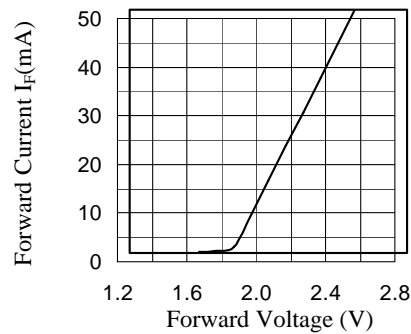


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

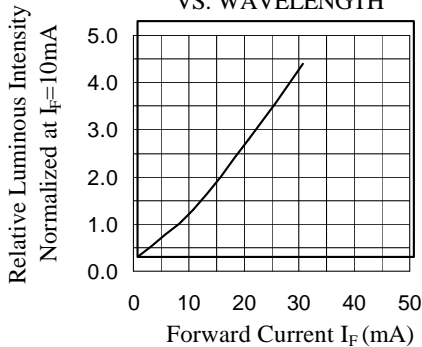


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

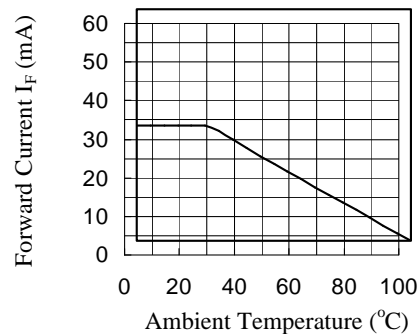


FIG.4 FORWARD CURRENT VS. AMBIENT TEMPERATURE

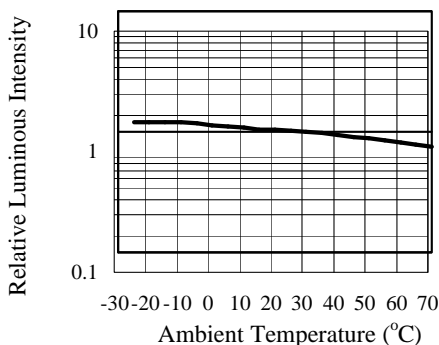


FIG.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

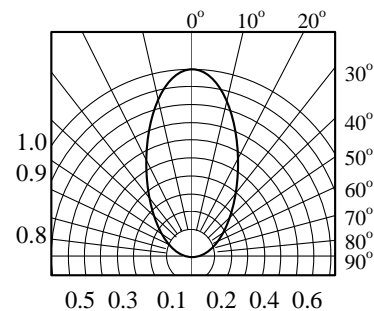


FIG.6 RADIATION DIAGRAM