

# T-1 3/4 ( $\Phi$ 5mm) PACKAGE

## HIGH POWER AlInGaP LED LAMPS

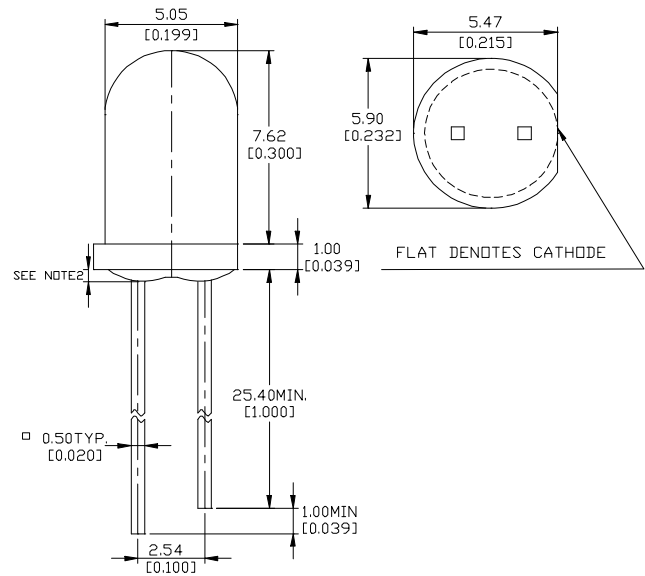
# MVL-5A4UYL

### Description

The MVL-5A4UYL , utilizes the latest absorbing substrate Aluminum Indium Gallium Phosphide (AlInGaP) LED technology. This LED material has outstanding light output efficiency over a wide range of drive current. The package is T-1 3/4 (5mm) water clear standard type.

### Package Dimensions

Unit: mm ( inches )



Notes :

1. Tolerance is  $\pm 0.25$  mm (.010") unless otherwise noted.
2. Protruded resin under flange is 1.5 mm (.059") max.
3. Lead spacing is measured where the leads emerge from the package.

### Features

- Ultra - brightness
- Low power consumption
- TTL compatible
- Reliable

### Absolute Maximum Ratings

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

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	$P_{ad}$	125	mW
Peak Forward Current(1/10 Duty Cycle 100 $\mu$ s pulse width)	$I_{pf}$	100	mA
Continuous Forward Current	$I_{af}$	50	mA
Reverse Voltage	$V_R$	5	V
Operating Temperature Range	$T_{opr}$	-40 $^\circ\text{C}$ to +100 $^\circ\text{C}$	
Storage Temperature Range	$T_{stg}$	-40 $^\circ\text{C}$ to +100 $^\circ\text{C}$	
Lead Soldering Temperature 1.6 mm from body for 5 seconds at 260 $^\circ\text{C}$			

## Optical-Electrical Characteristics

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

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	$I_F=20\text{mA}$	$I_V$	2000	4000	-	mcd
Forward Voltage	$I_F=20\text{mA}$	$V_F$	-	2.0	2.6	V
Reverse Current	$V_R=5\text{V}$	$I_R$	-	-	100	$\mu\text{A}$
Dominant Wavelength	$I_F=20\text{mA}$	$\lambda_d$	-	590	-	nm
Spectral Line Half Width	$I_F=20\text{mA}$	$\Delta\lambda$	-	20	-	nm
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	8	-	deg.

## Typical Optical-Electrical Characteristic Curves

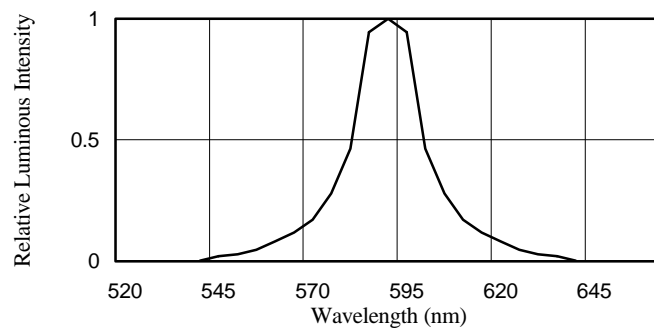


Fig.1 SPECTRAL DISTRIBUTION

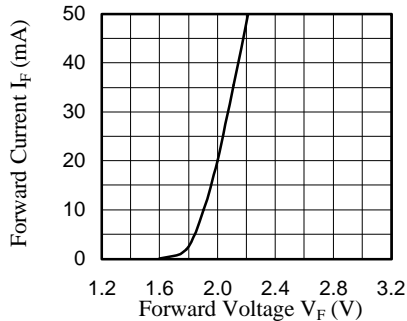


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

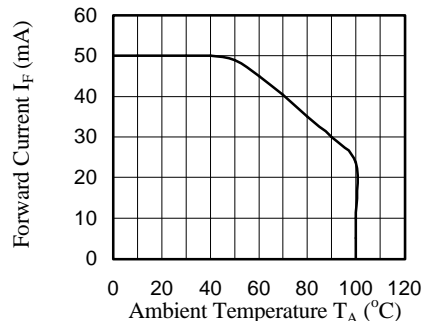


Fig.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

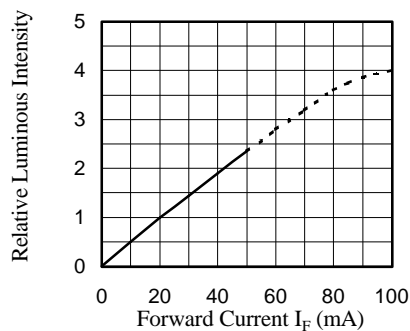


Fig.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

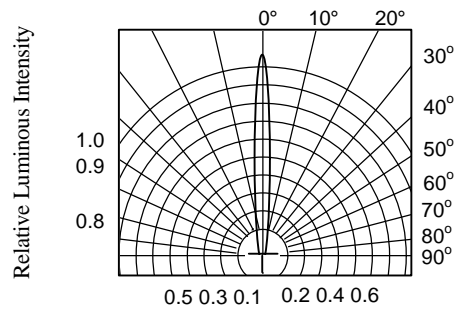


Fig.5 RADIATION DIAGRAM