

**T-1 3/4 ( f5mm)  
HIGH POWER AlInGaP LED LAMPs**

**MVL-544UOL**

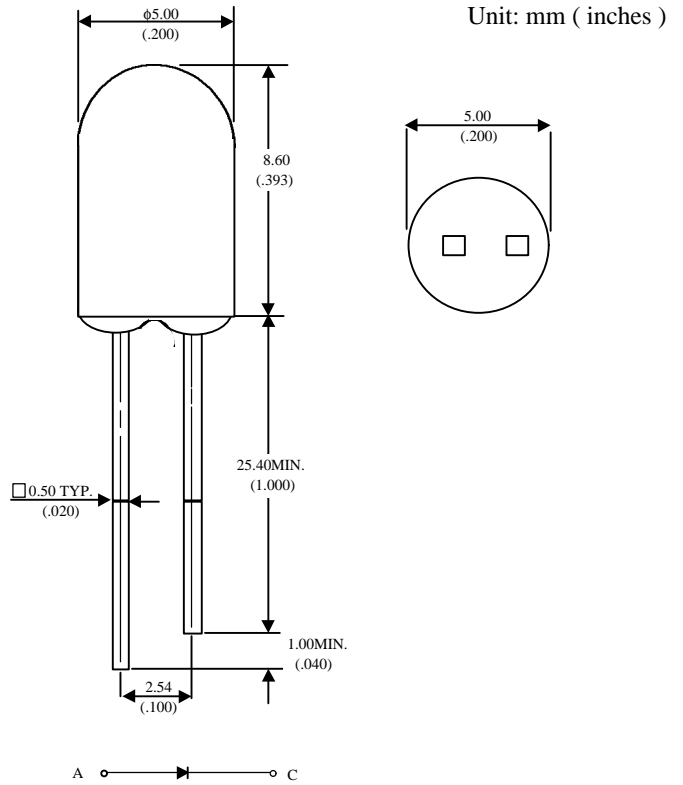
**Description**

The MVL-544UOL 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.

**Features**

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

**Package Dimensions**



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.

**Absolute Maximum Ratings**

@ T<sub>A</sub>=25°C

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	P <sub>ad</sub>	125	mW
Peak Forward Current(1/10 Duty Cycle 100μs pulse )	I <sub>pf</sub>	200	mA
Continuous Forward Current	I <sub>af</sub>	50	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature Range	T <sub>opr</sub>	-40°C to +100°C	
Storage Temperature Range	T <sub>stg</sub>	-40°C to +100°C	
Lead Soldering Temperature 1.6 mm from body for 5 seconds at 260°C			

## Optical-Electrical Characteristics

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

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Luminous Intensity	$I_F=20\text{mA}$	$I_V$	-	1500	-	mcd
Forward Voltage	$I_F=20\text{mA}$	$V_F$	-	1.9	2.4	V
Reverse Current	$V_R=5\text{V}$	$I_R$	-	-	100	$\mu\text{A}$
Wavelength	$I_F=20\text{mA}$	$\lambda_p$	-	630	-	nm
Spectral Line Half Width	$I_F=20\text{mA}$	$\Delta\lambda$	-	20	-	nm
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	30	-	deg.

## Typical Optical-Electrical Characteristic Curves

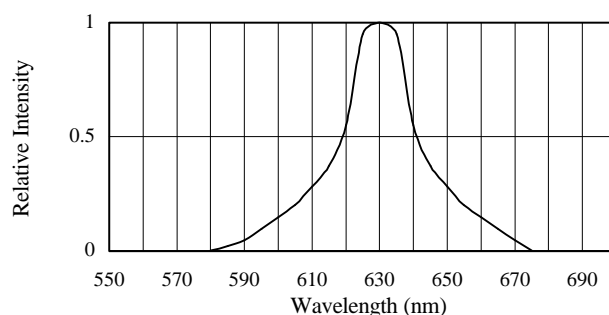


FIG.1 SPECTRAL DISTRIBUTION

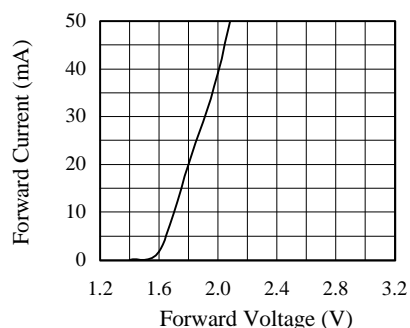


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

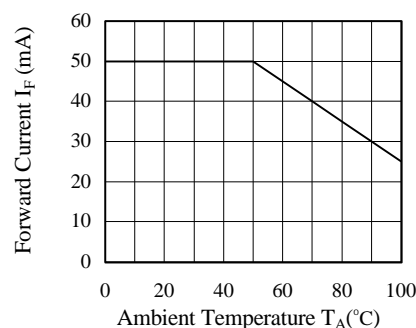


FIG.3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

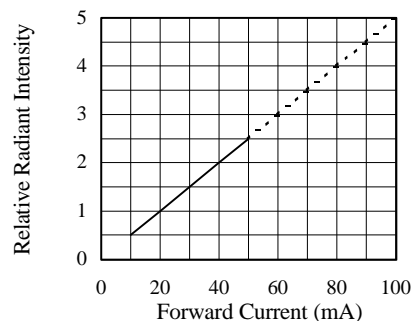


FIG.4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

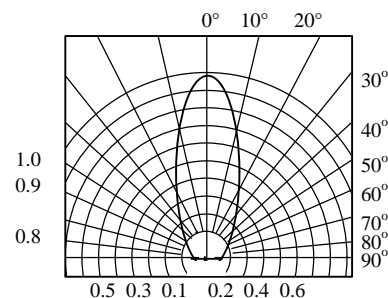


FIG.5 RADIATION DIAGRAM