

T-1 3/4 (ϕ 5mm) PACKAGE HIGH POWER AlInGaP LED LAMPS

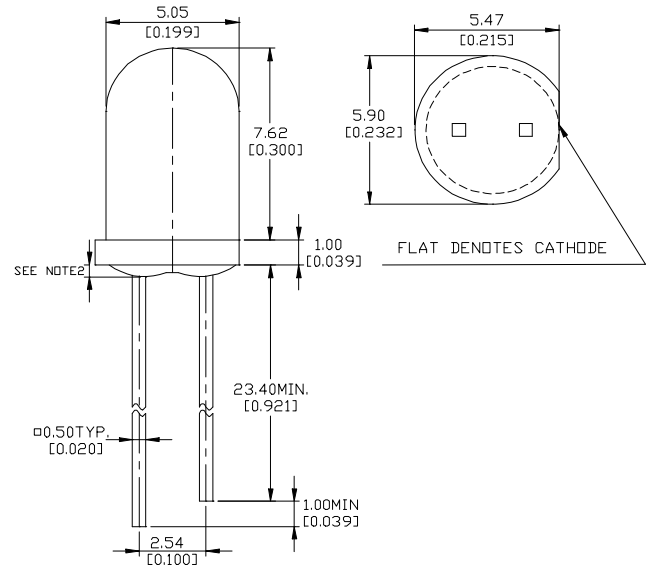
MVL-504SO

Description

The MVL-504SO 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 ± 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 100ms 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°C to +100°C	
Storage Temperature Range	T_{stg}	-40°C to +100°C	
Lead Soldering Temperature 1.6 mm from body for 5 seconds at 260°C			

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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	1100	2300	-	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	μA
Dominant Wavelength	$I_F=20\text{mA}$	λ_d	-	605	-	nm
Spectral Line Half Width	$I_F=20\text{mA}$	$\Delta\lambda$	-	20	-	nm
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	15	-	deg.

Typical Optical-Electrical Characteristic Curves

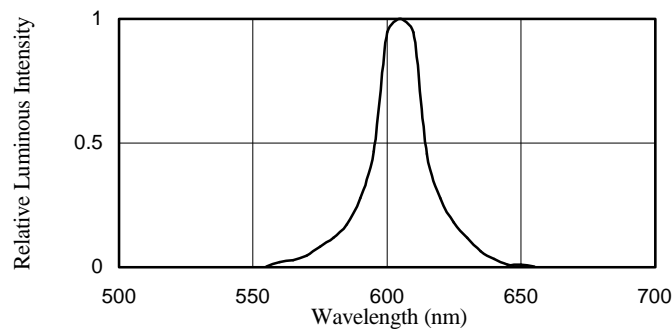


FIG.1 SPECTRAL DISTRIBUTION

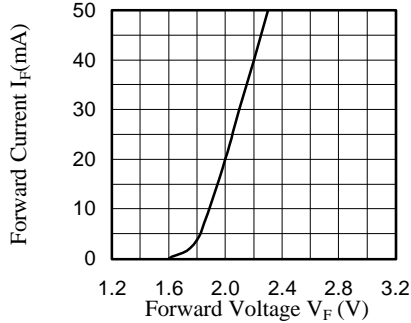


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

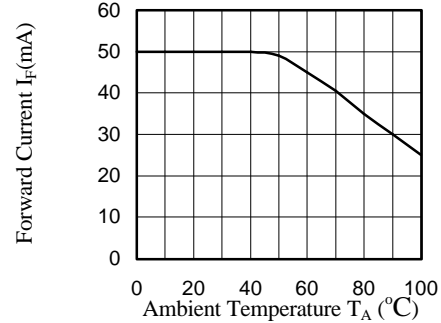


FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

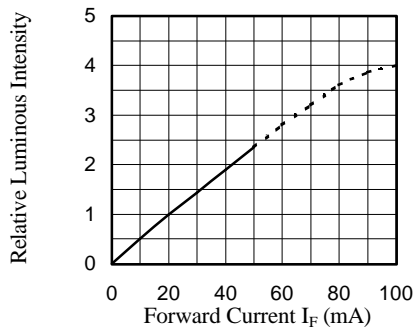


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

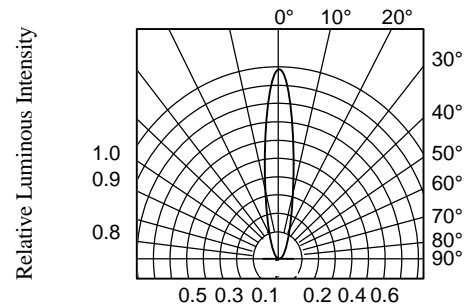


FIG.5 RADIATION DIAGRAM