

T-1 3/4 (5mm) High Performance AlInGaP LED Lamps

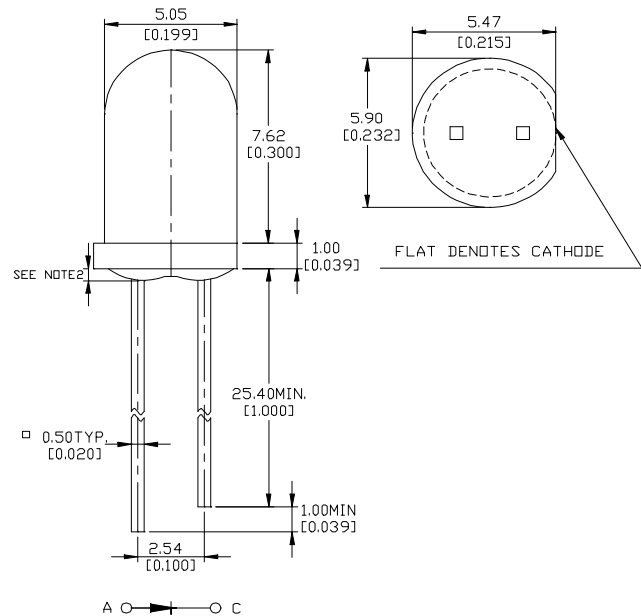
MVL-514SO

Description

The MVL-514SO 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)



Features

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

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.

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 μ s pulse)	I_{pf}	200	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 $^\circ\text{C}$	
Soldering Temperature 1.6 mm from body for 5 seconds at 260 $^\circ\text{C}$			

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Optical-Electrical Characteristics

@ T_A=25°C

Parameter	Test Conditions	Symbol	Min.	Typ .	Max .	Unit .
Luminous Intensity	I _F =20mA	I _V	600	1200	-	mcd
Forward Voltage	I _F =20mA	V _F	-	2.0	2.6	V
Reverse Current	V _R =5V	I _R	-	-	100	μA
Dominant Wavelength	I _F =20mA	λ _d	-	605	-	nm
Spectral Line Half Width	I _F =20mA	Δλ	-	13	-	nm
Viewing Angle	I _F =20mA	2θ _{1/2}	-	30	-	deg.

Typical Optical-Electrical Characteristic Curves

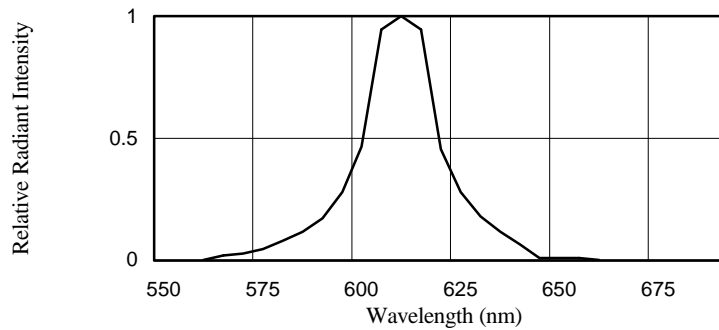


FIG.1 SPECTRAL DISTRIBUTION

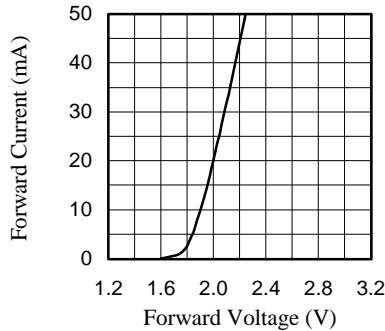


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

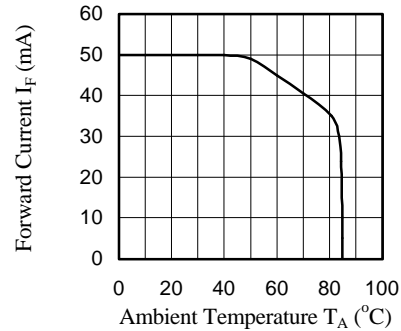


FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

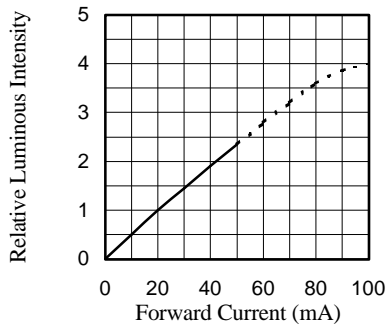


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

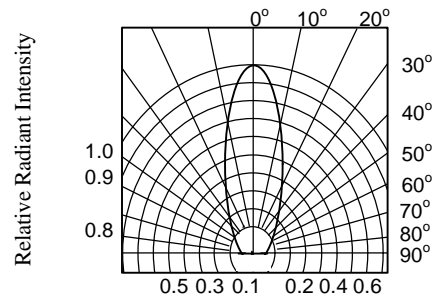


FIG.5 RADIATION DIAGRAM