

T-1 3/4 (ϕ 5mm) PACKAGE SOLID STATE LAMP

MVL-5A4SG

Description

The MVL-5A4SG, a green source color device, is made with InGaN on SiC substrate LED die.

The package is T-1 3/4 (ϕ 5mm) water clear plastic type.

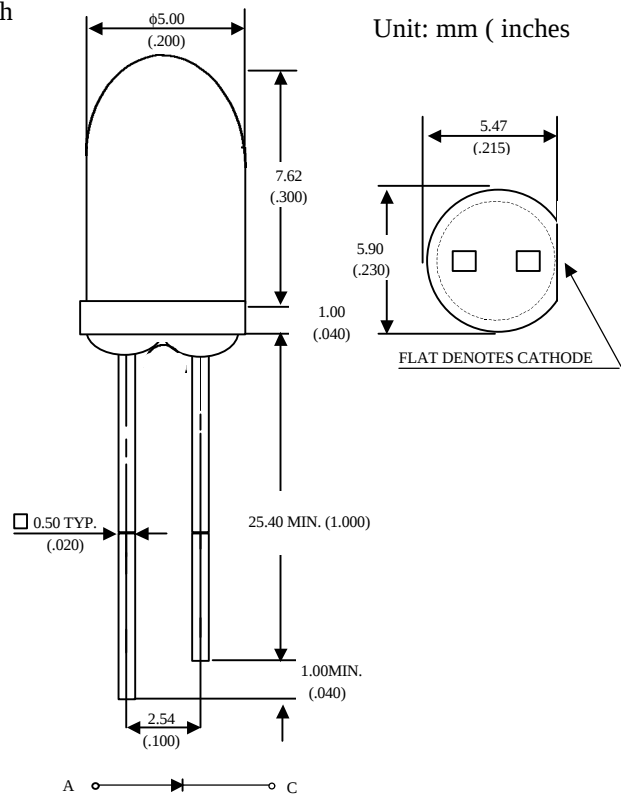
Applications

- Full color displays & moving message signs
- Solid state incandescent replacement bulbs
- High ambient panel indicators
- Color printers & scanners
- Medical & Analytical instruments

Features

- High performance - 2.0mW (505nm)
- Superior SiC substrate technology
- Excellent chip to chip consistency
- High reliability

Package Dimensions



Notes :

1. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
2. Protruded resin under flange is 0.8 mm (.031") 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
Peak Forward Current(1/10 Duty Cycle@1KHz)	I_{pf}	100	mA
Continuous Forward Current	I_{af}	30	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	-20°C to $+80^\circ\text{C}$	
Storage Temperature Range	T_{stg}	-30°C to $+100^\circ\text{C}$	
Electrostatic Discharge Threshold	E_{ot}	1000	V

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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	2500	5000	-	mcd
Forward Voltage	$I_F=20\text{mA}$	V_F	-	3.5	4.0	V
Reverse Current	$V_R=5\text{V}$	I_R	-	-	10	μA
Dominant Wavelength	$I_F=20\text{mA}$	λ_d	-	505	-	nm
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	8	-	deg.

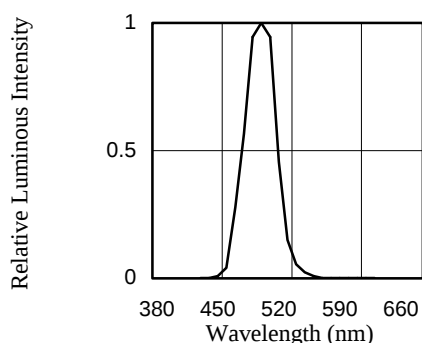
Typical Optical-Electrical Characteristic Curves


FIG.1 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

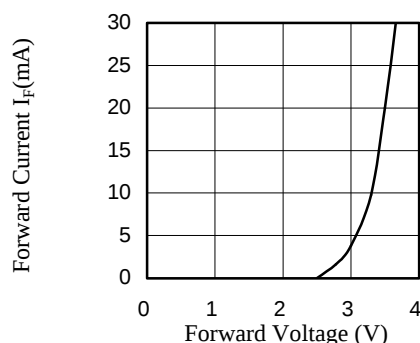
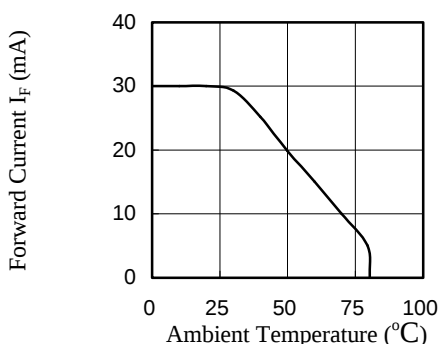
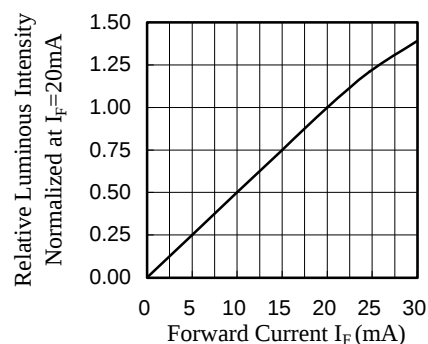
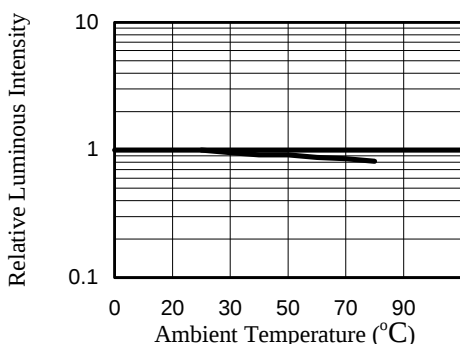

 FIG.2 FORWARD CURRENT I_F (mA) VS. FORWARD VOLTAGE

 FIG.3 FORWARD CURRENT I_F (mA) VS. AMBIENT TEMPERATURE

 FIG.4 RELATIVE LUMINOUS INTENSITY NORMALIZED AT $I_F=20\text{mA}$ VS. FORWARD CURRENT I_F (mA)


FIG.5 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

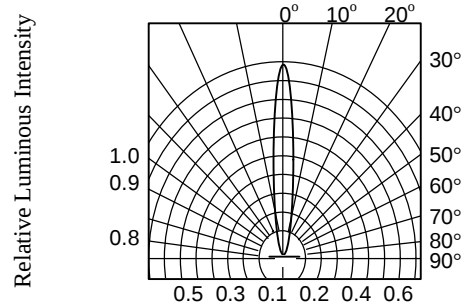


FIG.6 RADIATION DIAGRAM