

# T-1 3/4 ( $\phi 5\text{mm}$ ) PACKAGE SOLID STATE LAMP

## MVL-534BG

### Description

The MVL-534BG, a blue source color device, is made with InGaN ( on SiC substrate) LED die.

The package is T-1 3/4 (  $\phi 5\text{mm}$  ) water clear plastic type.

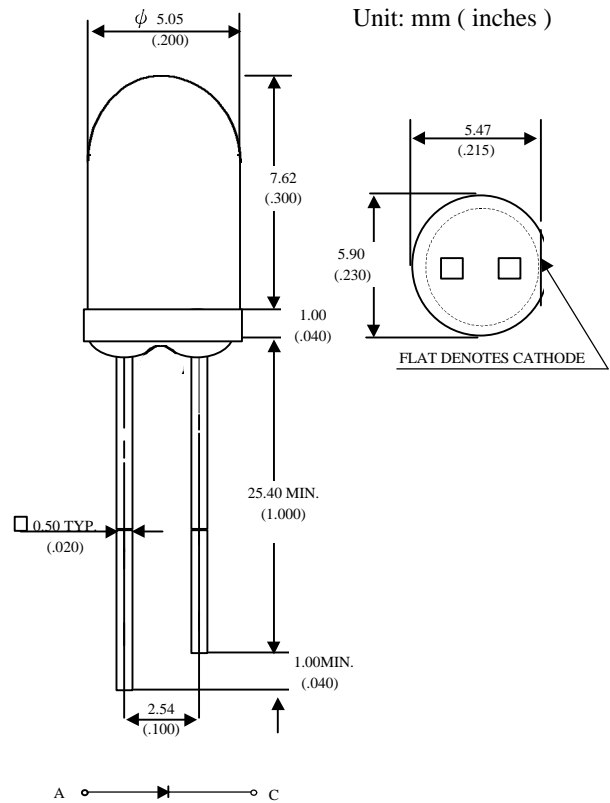
### Applications

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

### Features

- High performance - 2.5mW (490nm)
- Superior SiC substrate technology
- Excellent chip to chip consistency
- High reliability

### Package Dimensions



Notes :

1. Tolerance is  $\pm 0.25\text{ mm}$  (.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°C	
Storage Temperature Range	$T_{stg}$	-30°C to +100°C	
Electrostatic Discharge Threshold(HBM)	$E_{ot}$	1000	V

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## Optical-Electrical Characteristics

@ T<sub>A</sub>=25°C

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I <sub>F</sub> =20mA	I <sub>V</sub>	700	1300	-	mcd
Forward Voltage	I <sub>F</sub> =20mA	V <sub>F</sub>	-	3.5	4.0	V
Reverse Current	V <sub>R</sub> =5V	I <sub>R</sub>	-	-	10	μA
Dominant Wavelength	I <sub>F</sub> =20mA	λ <sub>d</sub>	-	490	-	nm
Viewing Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>	-	20	-	deg.

## Typical Optical-Electrical Characteristic Curves

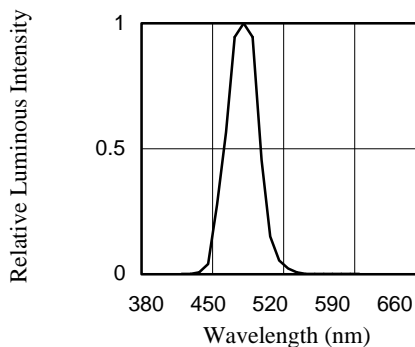


FIG.1 RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH

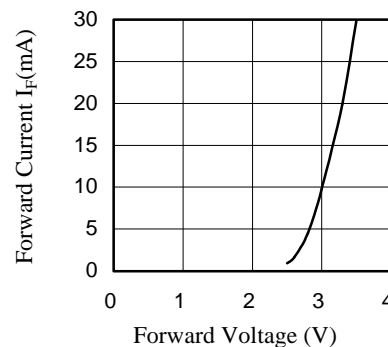


FIG.2 FORWARD CURRENT I<sub>F</sub> (mA) VS. FORWARD VOLTAGE

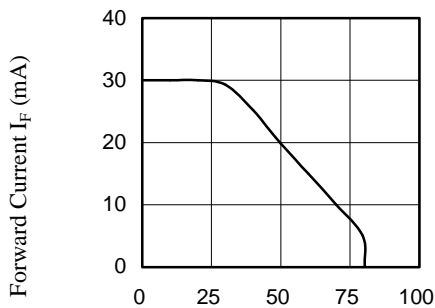


FIG.3 FORWARD CURRENT I<sub>F</sub> (mA) VS. AMBIENT TEMPERATURE

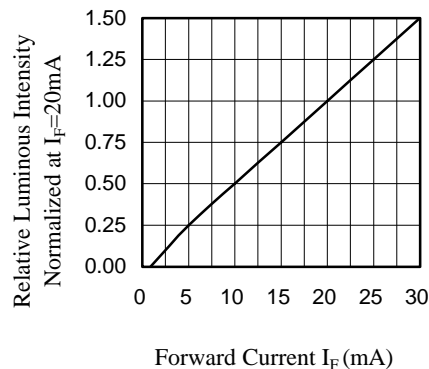


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

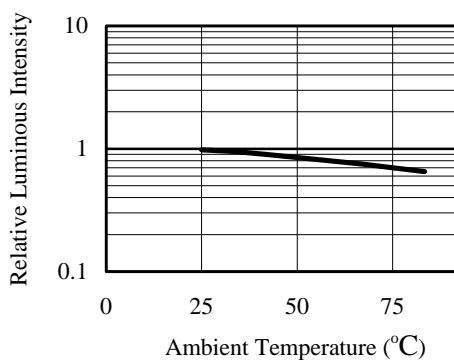


FIG.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

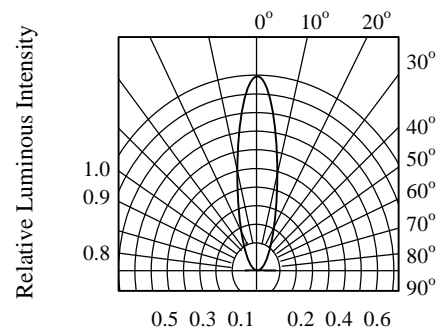


FIG.6 RADIATION DIAGRAM