

# T-1 3/4 ( $\phi 5\text{mm}$ ) InGaN LED LAMPs

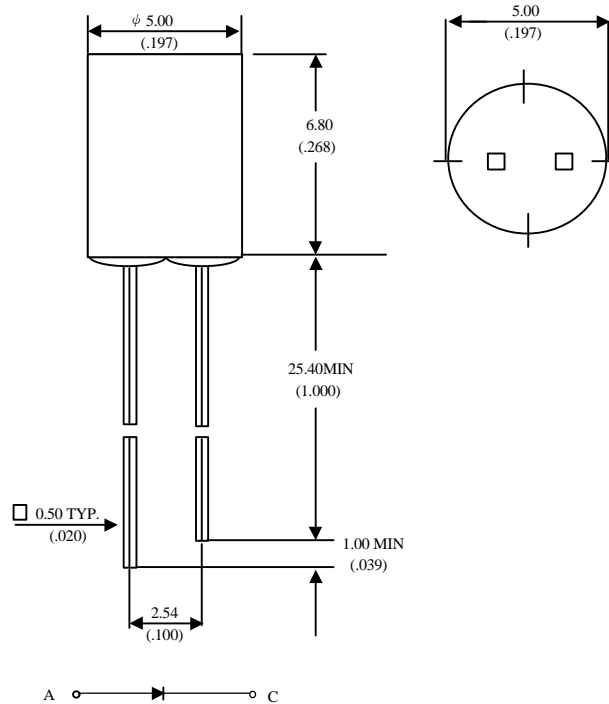
# MVL-584BV

## Description

The MVL-584BV, a blue source color device, is made with GaN ( on SiC substrate) LED die.  
The package is T-1 3/4( $\phi 5\text{mm}$ ) water clear plastic type.

## Package Dimensions

Unit : mm (inches)



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.

## 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 - 1.15mW (430nm)
- Superior SiC substrate technology
- Excellent chip to chip consistency
- High reliability

## 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	$T_{opr}$	$-20^\circ\text{C}$ to $+80^\circ\text{C}$	
Storage Temperature Range	$T_{stg}$	$-30^\circ\text{C}$ to $+100^\circ\text{C}$	
Electrostatic Discharge Threshold(HBM)	$E_{ot}$	1000	V
Solder temperature 1.6 mm from body for 3 seconds at $260^\circ\text{C}$			

# UNI

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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>	10	20	-	mcd
Forward Voltage	I <sub>F</sub> =20mA	V <sub>F</sub>	-	3.9	4.5	V
Reverse Current	V <sub>R</sub> =5V	I <sub>R</sub>	-	-	10	μA
Peak Emission Wavelength	I <sub>F</sub> =20mA	λ <sub>p</sub>	-	430	-	nm
Viewing Angle	I <sub>F</sub> =20mA	2θ <sub>1/2</sub>	-	75	-	deg.

## Typical Optical-Electrical Characteristic Curves

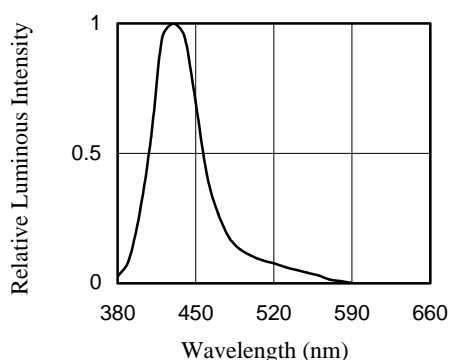


FIG.1 RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH

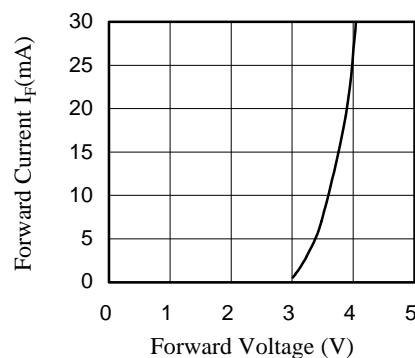


FIG.2 FORWARD CURRENT I<sub>F</sub> VS. FORWARD VOLTAGE

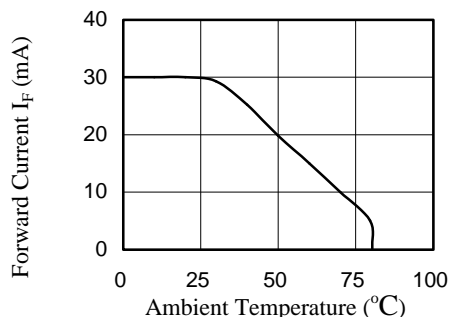


FIG.3 FORWARD CURRENT I<sub>F</sub> VS. AMBIENT TEMPERATURE

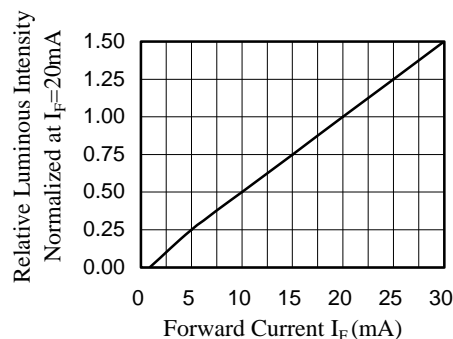


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

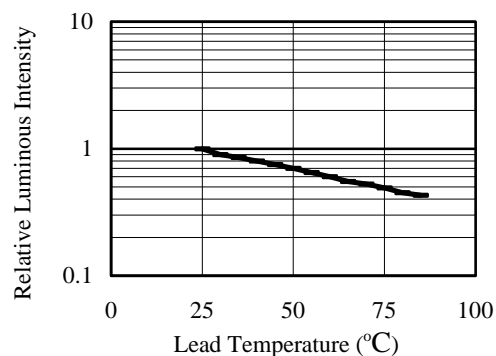


FIG.5 LUMINOUS INTENSITY VS. LEAD TEMPERATURE

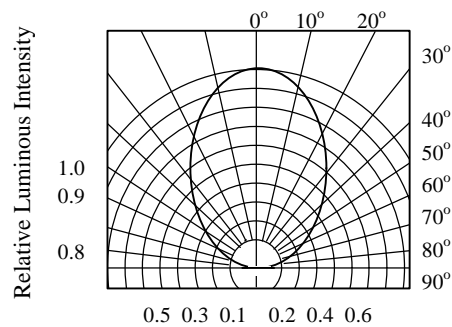


FIG.6 RADIATION DIAGRAM