T-1 PACKAGE
SOLID STATE LAMP

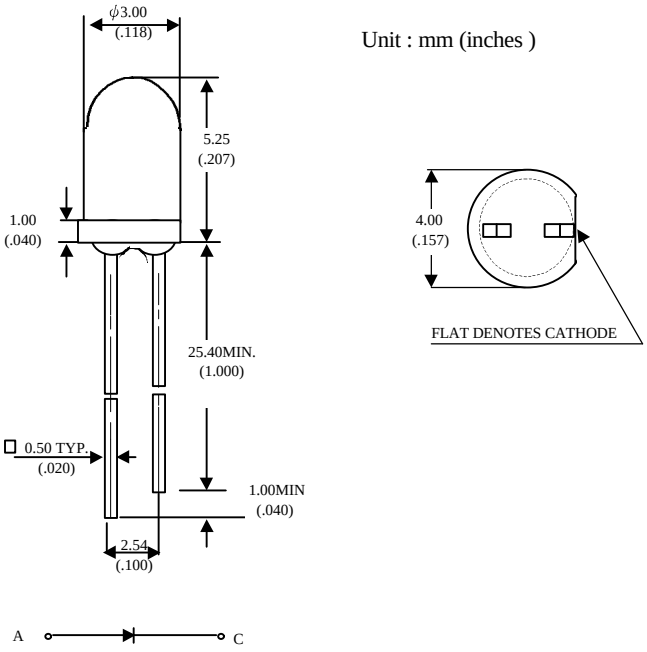
MVL-354BV

Description

The MVL-354BV, a blue source color device, is made with GaN (on SiC substrate) LED die.

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

Package Dimensions



Unit : mm (inches)

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

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 ℃

Parameter	Symbol	Maximum Rating	Unit
Peak Forward Current(1/10 Duty Cycle@1KHz)	I_{pf}	70	mA
Continuous Forward Current	I_{af}	30	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	-20 ℃ to +80 ℃	
Storage Temperature Range	T_{stg}	-30 ℃ to +100 ℃	
Electrostatic Discharge Threshold(HBM)	E_{ot}	1000	V
Solder temperature 1.6 mm from body for 3 seconds at 260 ℃			

Optical-Electrical Characteristics

@ T_A=25℃

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I_F=20mA	I_V	50	100	-	mcd
Forward Voltage	I_F=20mA	V_F	-	3.9	4.5	V
Reverse Current	V_R=5V	I_R	-	-	10	μA
Peak Emission Wavelength	I_F=20mA	λ_p	-	430	-	nm
Viewing Angle	I_F=20mA	$2\theta_{1/2}$	-	30	-	deg.

Typical Optical-Electrical Characteristic Curves

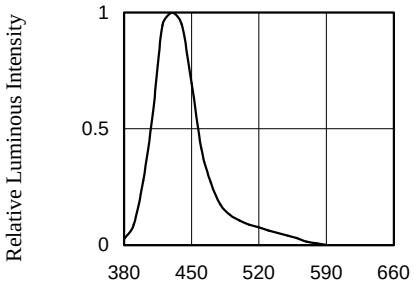


FIG.1 RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH

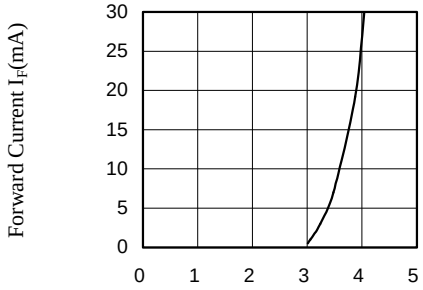


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

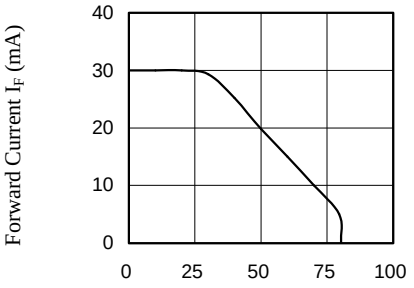


FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

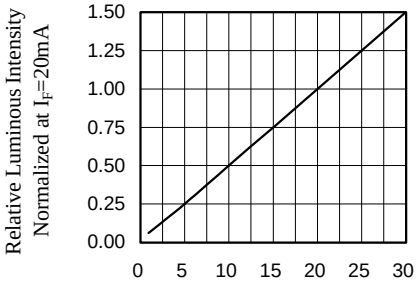


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

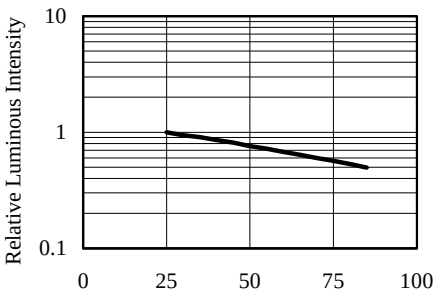


FIG.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

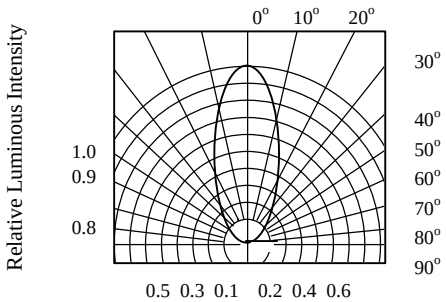


FIG.6 RADIATION DIAGRAM