T-1 3/4 (f5mm)
InGaN LED LAMPs

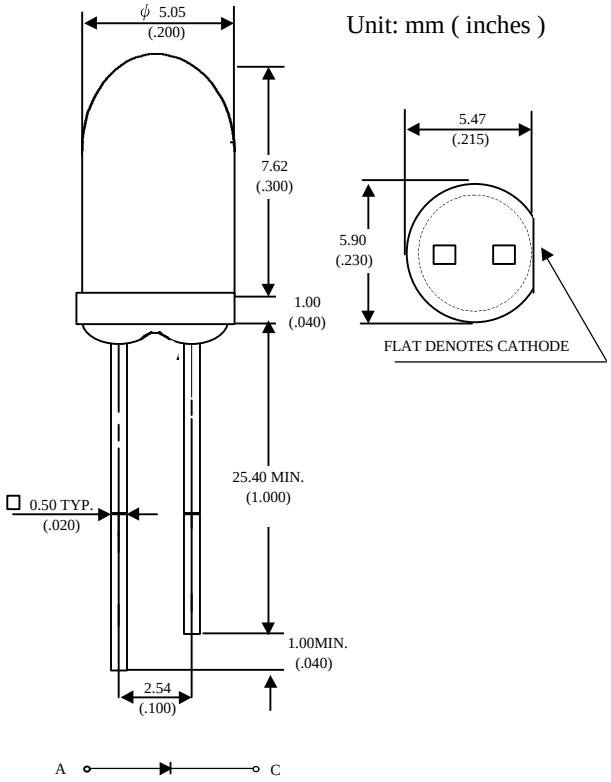
MVL-5C4BS

Description

The MVL-5C4BS, a blue source color device, is made with InGaN (on SiC substrate) LED die.

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

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.

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 - 3.5mW (450nm)
- Superior SiC substrate technology
- Excellent chip to chip consistency
- High reliability

Absolute Maximum Ratings

@ T_A=25℃

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 ℃ to +80 ℃	
Storage Temperature Range	T_{stg}	-30 ℃ to +100℃	
Electrostatic Discharge Threshold	E_{ot}	1000	V

Optical-Electrical Characteristics

@ T_A=25℃

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	I_F=20mA	I_V	150	300	-	mcd
Forward Voltage	I_F=20mA	V_F	-	3.7	4.0	V
Reverse Current	V_R=5V	I_R	-	-	10	μA
Dominant Wavelength	I_F=20mA	λ_d	-	450	-	nm
Viewing Angle	I_F=20mA	$2\theta_{1/2}$	-	30	-	deg.

Typical Optical-Electrical Characteristic Curves

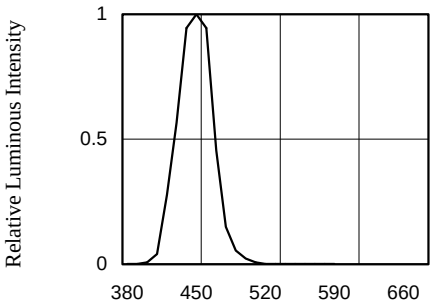


FIG.1 RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH

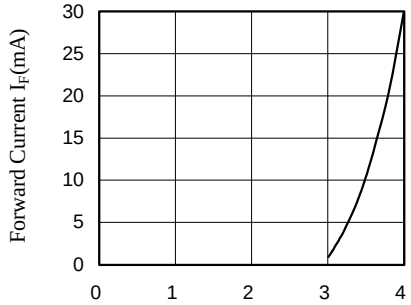


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

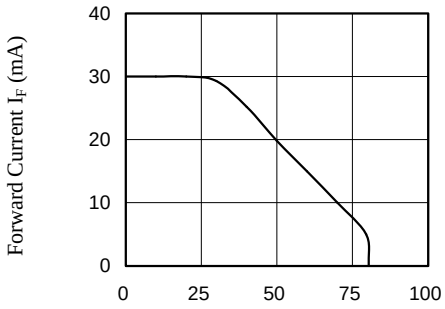


FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

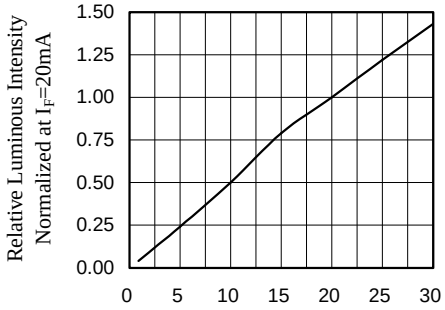


FIG.4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

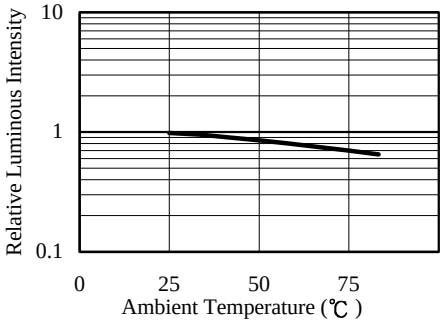


FIG.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

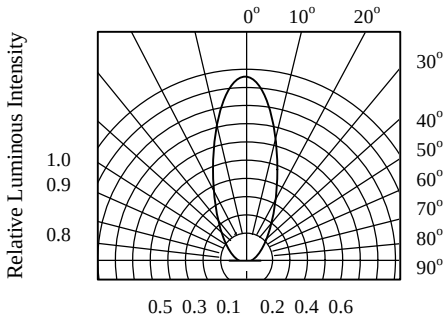


FIG.6 RADIATION DIAGRAM