

## L450-\_\_ \_U Blue LED Lamp

This series of L450-\_\_ \_U is an InGaN LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a band of visible light that peaks 450nm.

### 1) Specifications

- (1) Chip material      InGaN
- (2) Peak wavelength    450nm typ.
- (3) Package            Clear epoxy resin
- (4) Lead frame        Soldered

### 2) Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	120	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	30	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +85	°C	T <sub>a</sub> =25°C
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	260	°C	

### 3) Electro-Optical Characteristics [T<sub>a</sub>=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		3.8	4.3	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA		1.3		mW
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	440	450	460	nm
Half Width	Δλ	I <sub>F</sub> =20mA		30		nm

### 4) Characteristics of Brightness [T<sub>a</sub>=25°C]

Type	Viewing Half Angle	Brightness I <sub>F</sub> =20mA unit: mcd			Outer Dimension	
		Minimum	Typical	Maximum	Dimension	Figure
L450-01U	±10°		250		Φ5	1
L450-02U	±5°		600		Φ5	2
L450-03U	±12°		250		Φ5	3
L450-04U	±23°		100		Φ5	4
L450-05U	±30°		50		Φ5	5
L450-06U	±9°		1000		Φ5	6
L450-09U	±20°(Long)		150		Φ5	7
	±13°(Short)			Oval		
L450-10U			1100		Φ10	8
L450-33U	±18°		120		Φ3	9
L450-36U	±28°		50		Φ3	10

‡ Brightness is measured by Tektronix J-16.

‡ Total Radiated Power is measured by Photodyne #500.