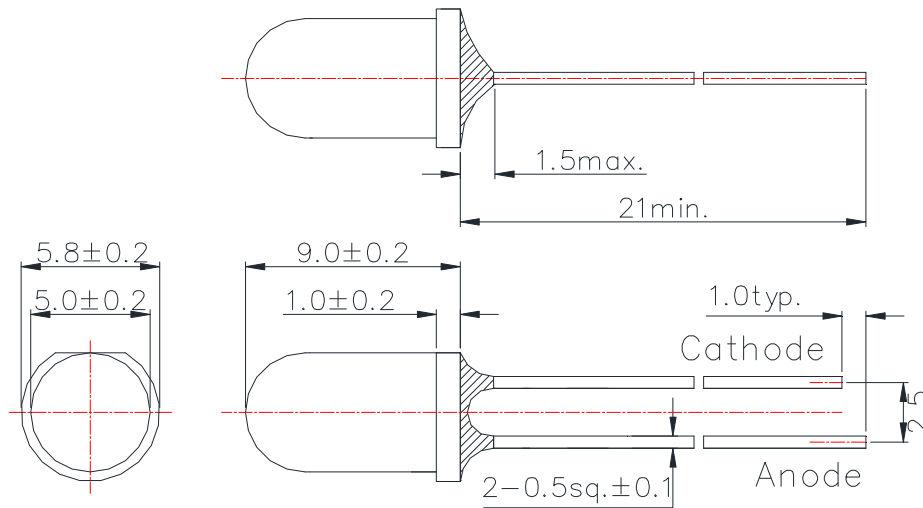


**epitex****PRELIMINARY**

## L450-01

Blue LED Lamp

### Outline and Internal Circuit



(Unit : mm)

### Features

- Chip Material : InGaN
- Chip Dimension : 350um \* 350um
- Number of Chips : 1pce
- Peak Wavelength : 450nm typ.
- Package Type :  $\phi 5$ mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

### Application

### Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	200	mW
Forward Current	IF	50	mA
Pulse Forward Current	IFP	100	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjs	220	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	TSOL	265	°C

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

‡Soldering condition : Soldering condition must be completed with 3 seconds at 265°C.

### Optical and Electrical Characteristics (Tc=25°C)

(\*: 100% testing, \*\*: reference value)

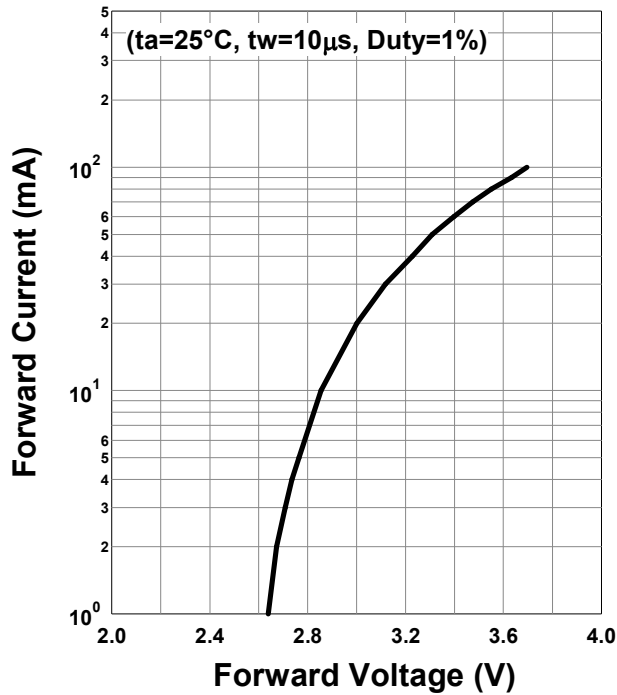
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		3.0	4.0	V	IF=20mA*
	VFP		3.7			IFP=100mA**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	16	24		mW	IF=20mA*
			92			IFP=100mA**
Radiant Intensity	IE		200		mW/sr	IF=20mA**
			770			IFP=100mA**
Luminous Flux	ΦV		850		mlm	IF=20mA
Peak Wavelength	λp	440		460	nm	IF=20mA*
Dominant Wavelength	λD		455		nm	IF=20mA
Half Width	Δλ		19		nm	IF=20mA**
Viewing Half Angle	θ1/2		±8		deg.	IF=20mA**
Rise Time	tr		30		ns	IF=20mA**
Fall Time	tf		30		ns	IF=20mA**

‡ Radiated Power is measured by S3584-08.

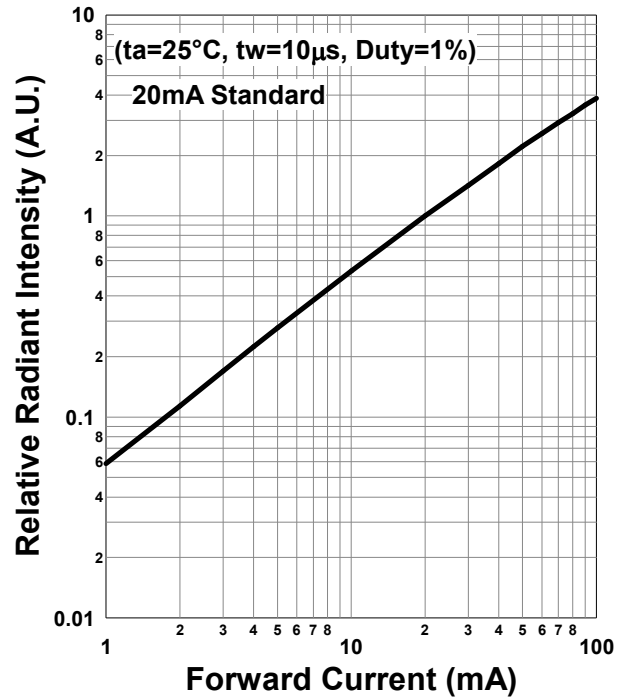
‡ Radiant Intensity is measured by CIE127-2007 Condition B.

Typical Characteristic Curves

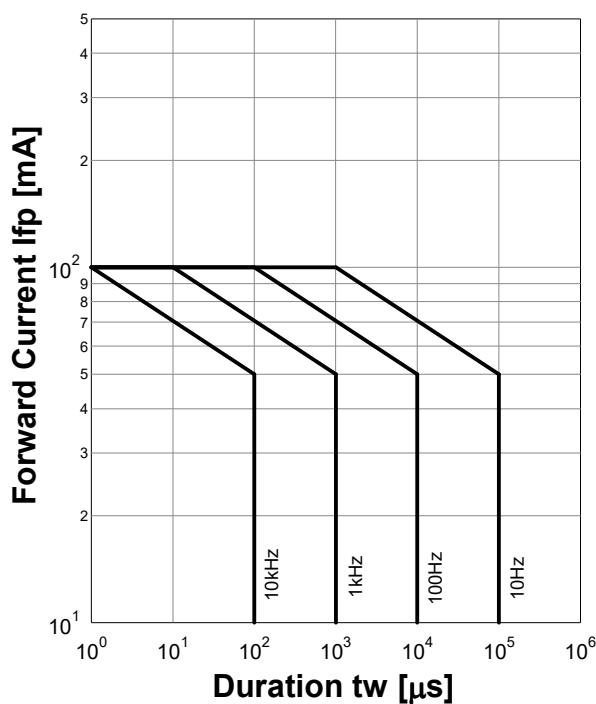
Forward Current - Forward Voltage



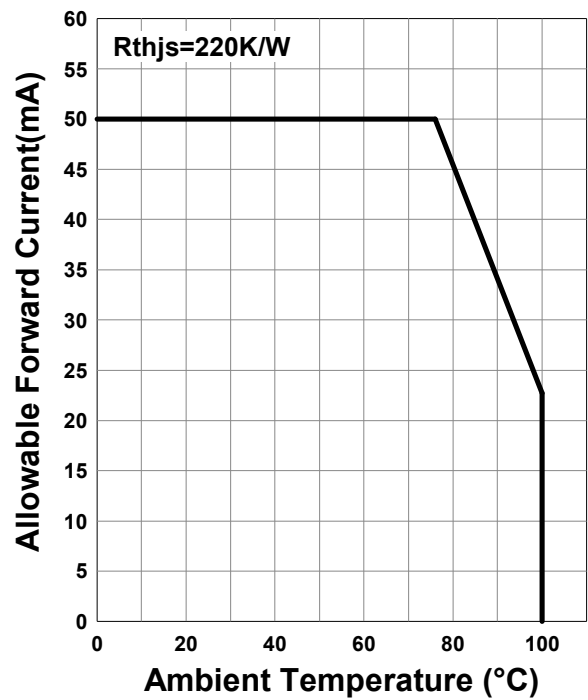
Relative Radiant Intensity - Forward Current



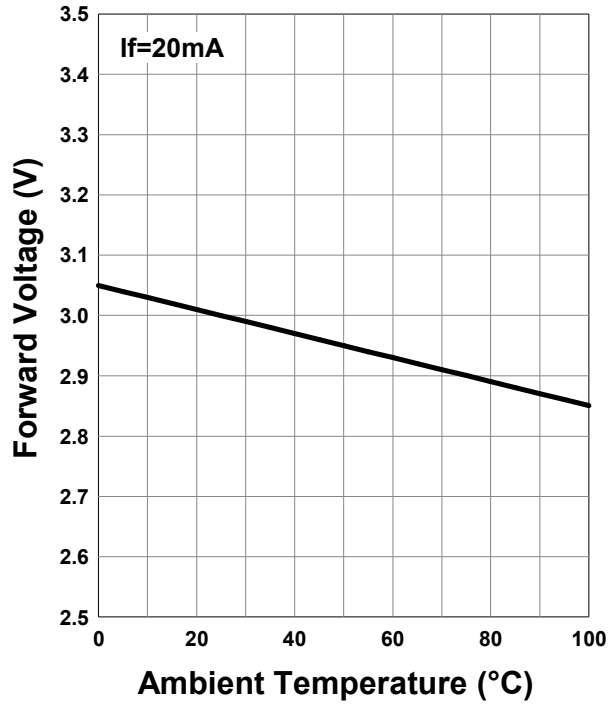
Forward Current - Pulse Duration



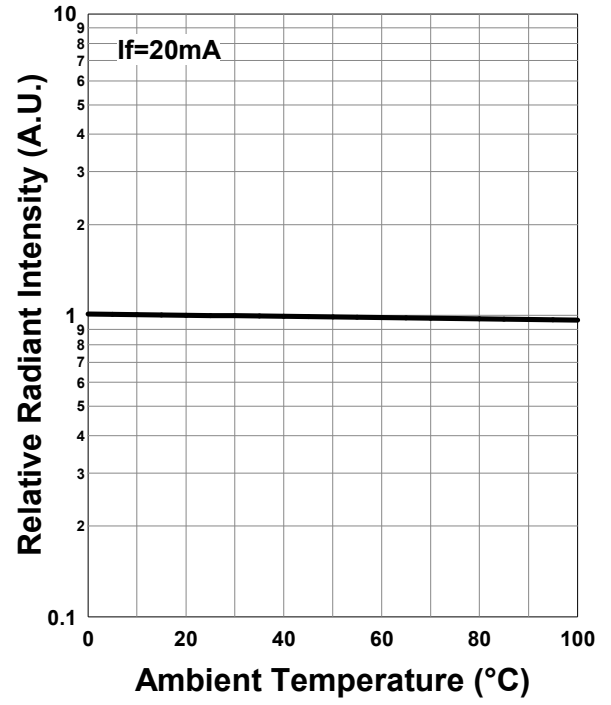
Allowable Forward Current - Ambient Temperature



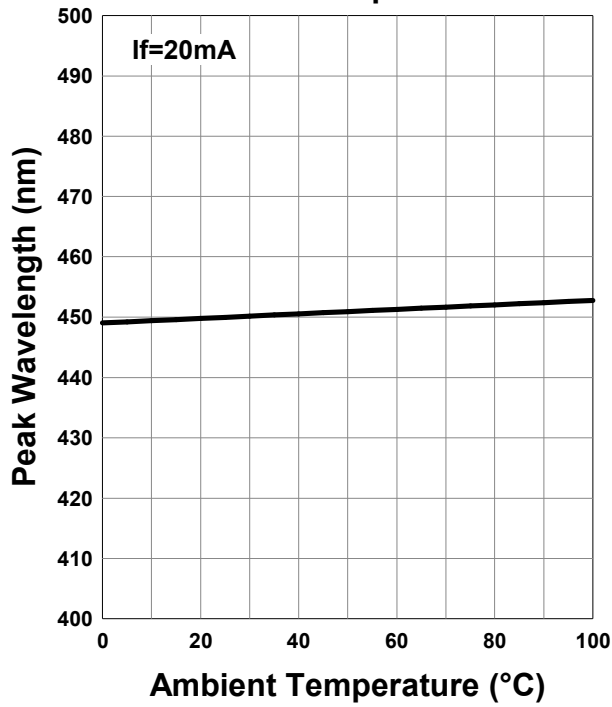
**Forward Voltage - Ambient Temperature**



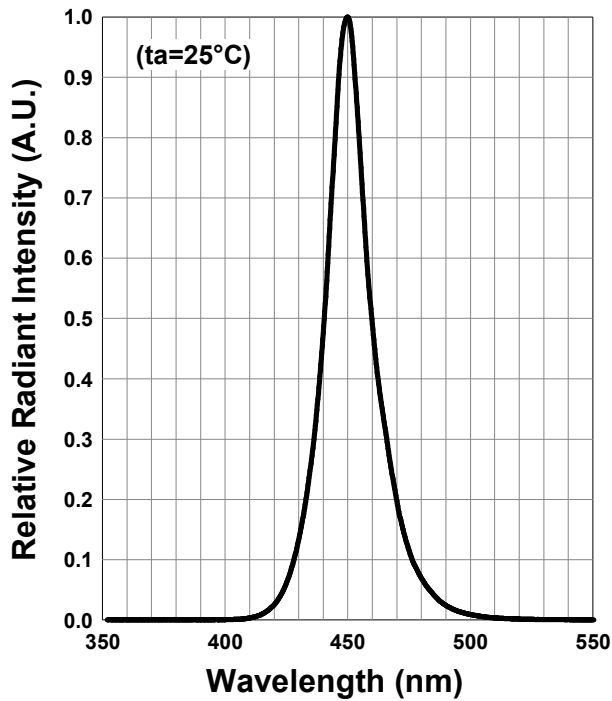
**Relative Radiant Intensity - Ambient Temperature**



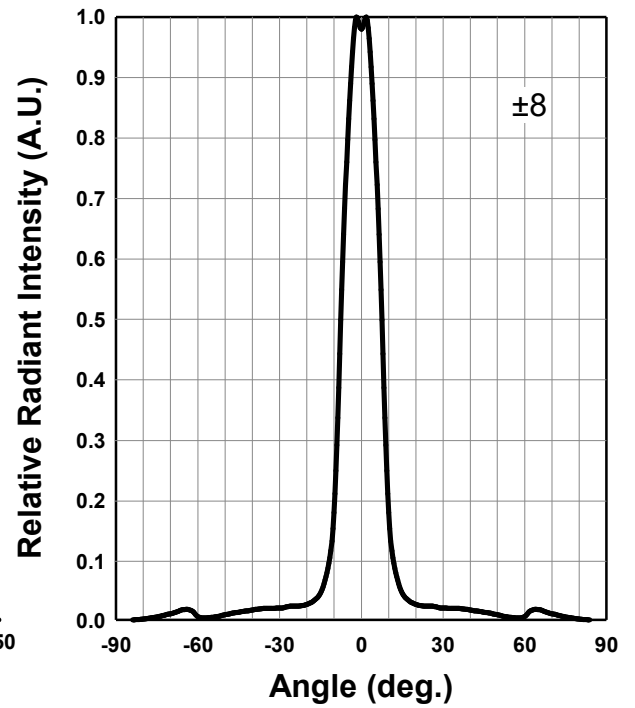
**Peak Wavelength - Ambient Temperature**



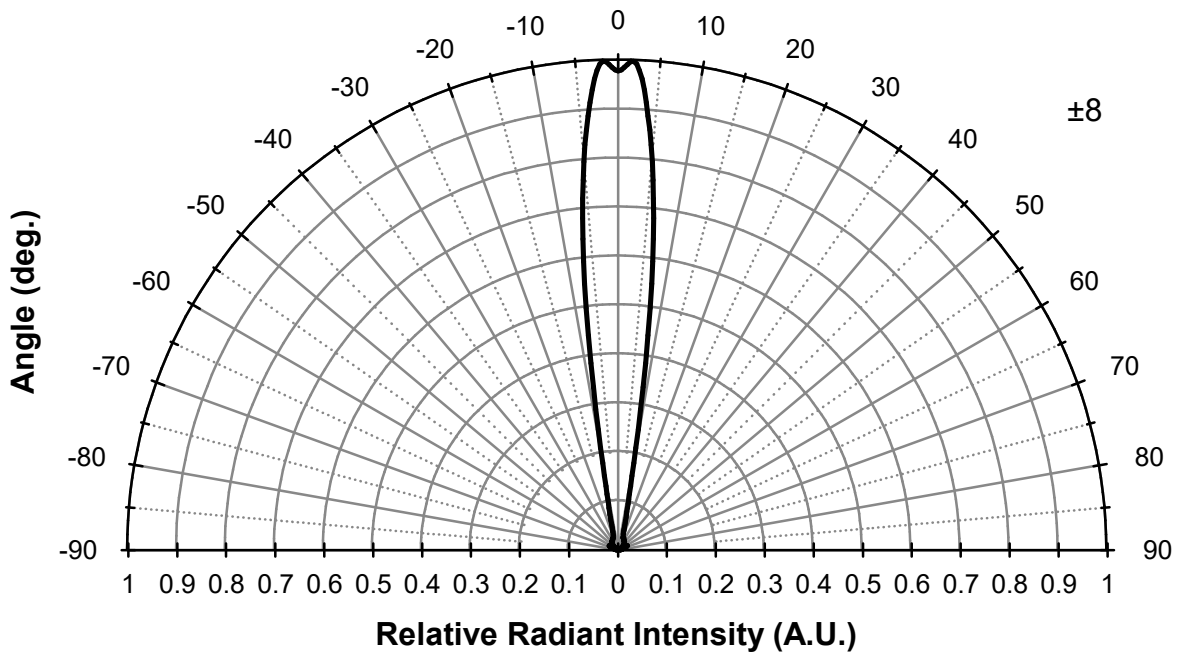
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



## Disclaimer

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Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

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