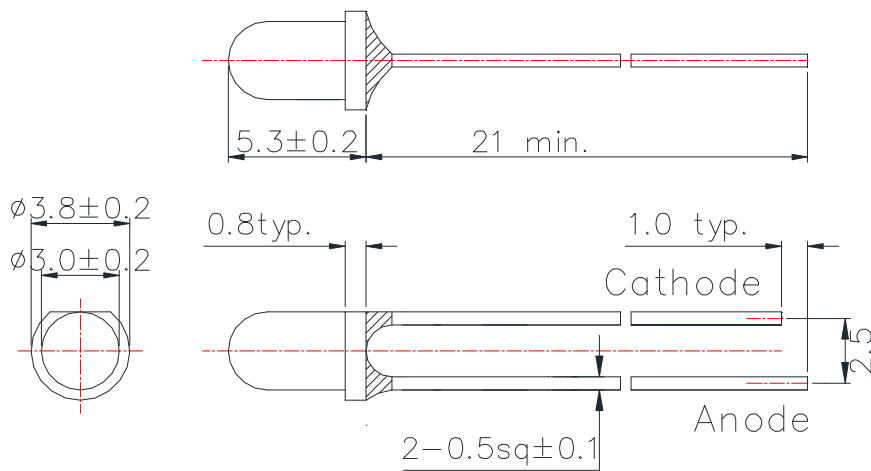


## L490-33

Super Bright Greenish Blue LED Lamp

### Outline and Internal Circuit



(Unit : mm)

### Features

- Chip Material : InGaN
- Chip Dimension : 350um \* 350um
- Number of Chips : 1pce
- Peak Wavelength : 490nm typ.
- Package Type :  $\phi 3$ mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

## Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	180	mW
Forward Current	IF	50	mA
Pulse Forward Current	IFP	100	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	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)

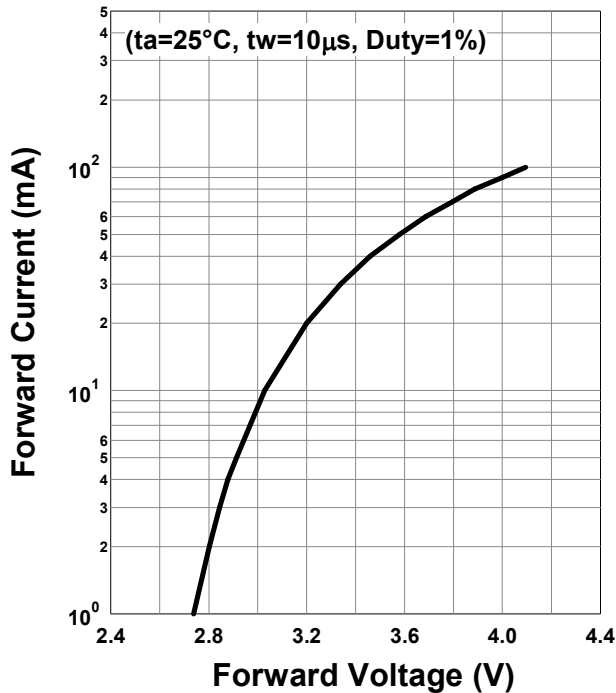
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		3.2	3.6	V	IF=20mA*
	VFP		4.1			IFP=100mA**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	8.4	12		mW	IF=20mA*
			40			IFP=100mA**
Radiant Intensity	IE		35		mW/sr	IF=20mA**
			110			IFP=100mA**
Luminous Flux	ΦV		3000		mlm	IF=20mA**
Peak Wavelength	λp	480		500	nm	IF=20mA*
Dominant Wavelength	λD		492		nm	IF=20mA**
Half Width	Δλ		32		nm	IF=20mA**
Viewing Half Angle	θ1/2		±15		deg.	IF=20mA**
Rise Time	tr		35		ns	IF=20mA**
Fall Time	tf		40		ns	IF=20mA**

‡ Radiated Power is measured by S3584-08.

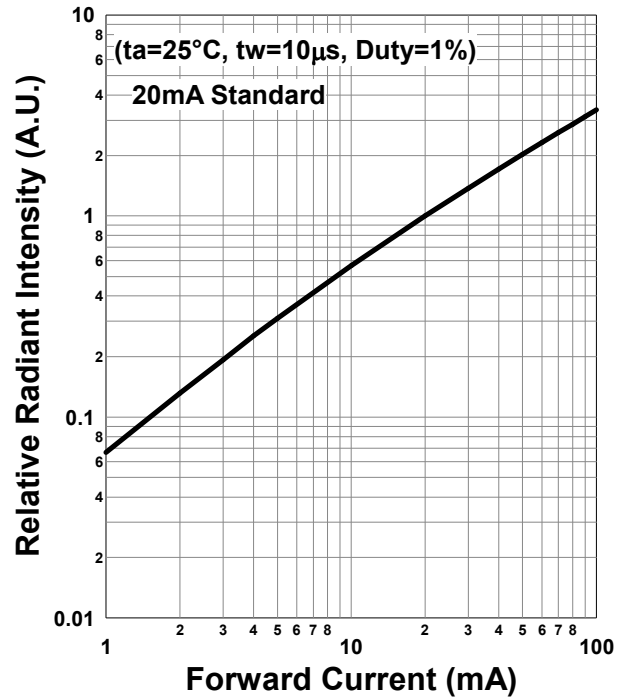
‡ Radiant Intensity is measured by CIE127-2007 Condition B.

## Typical Characteristic Curves

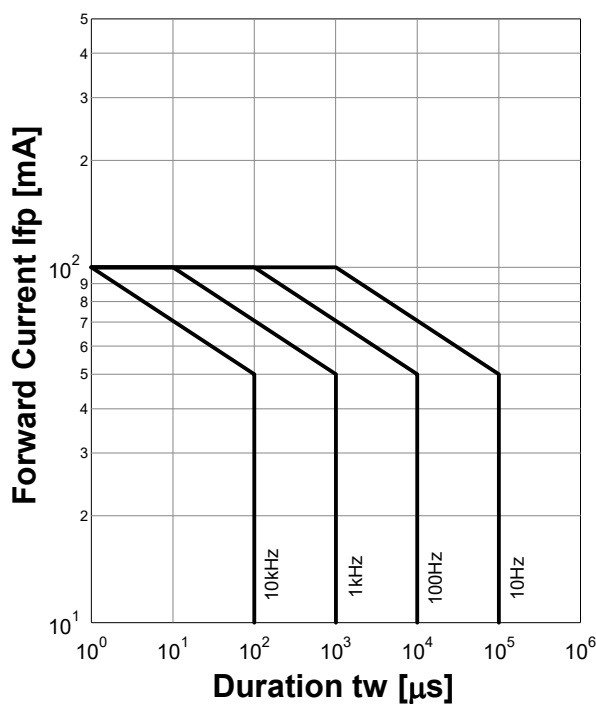
### Forward Current - Forward Voltage



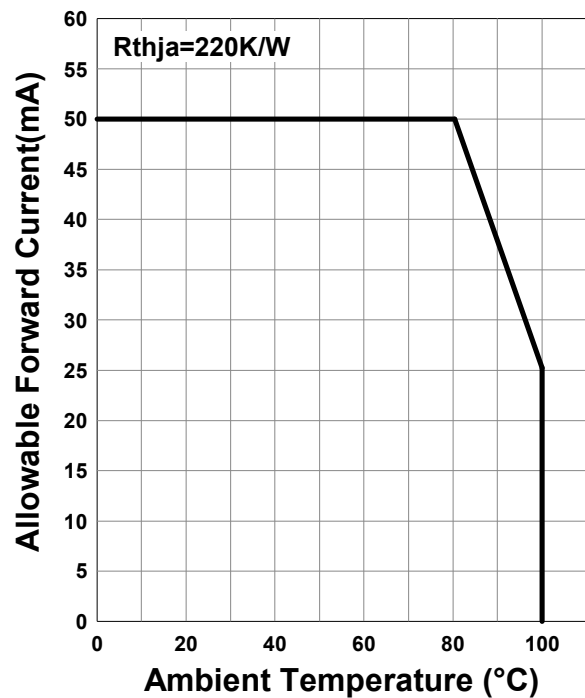
### Relative Radiant Intensity - Forward Current

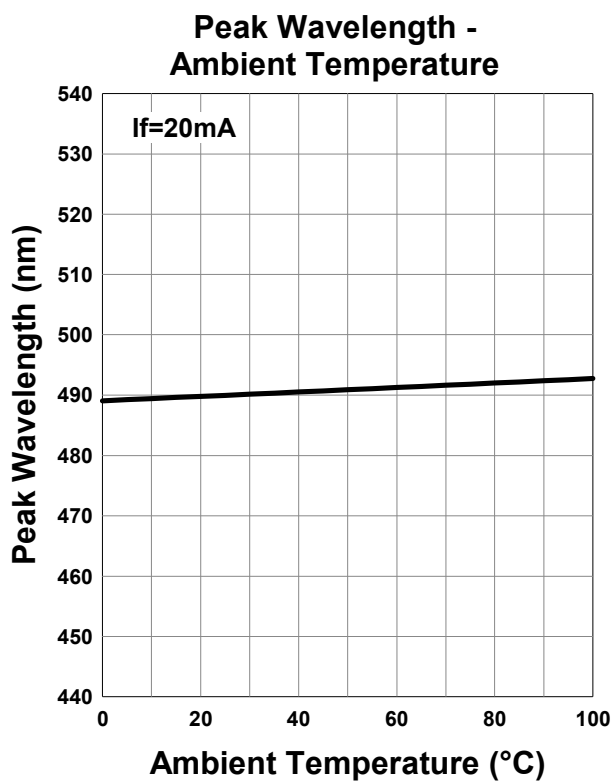
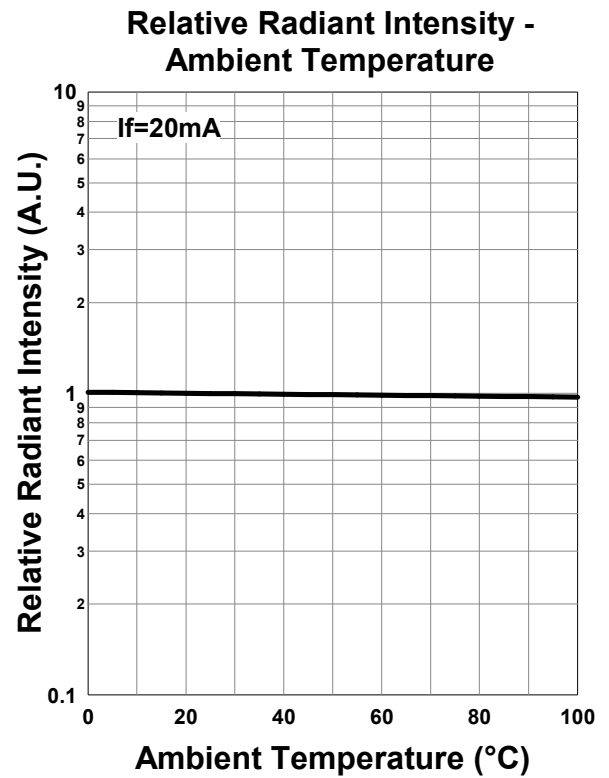
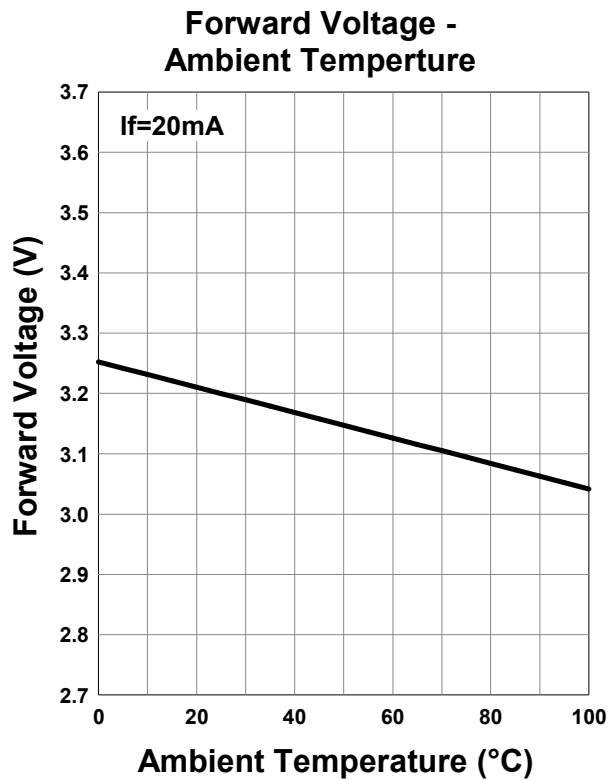


### Forward Current - Pulse Duration

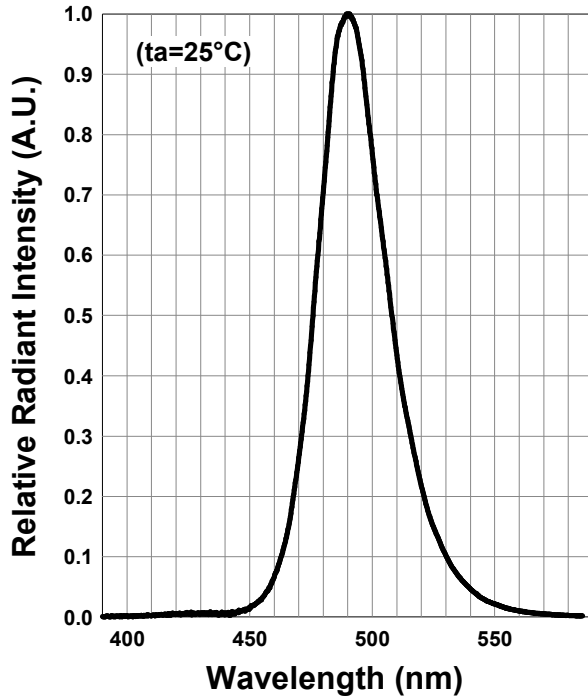


### Allowable Forward Current - Ambient Temperature

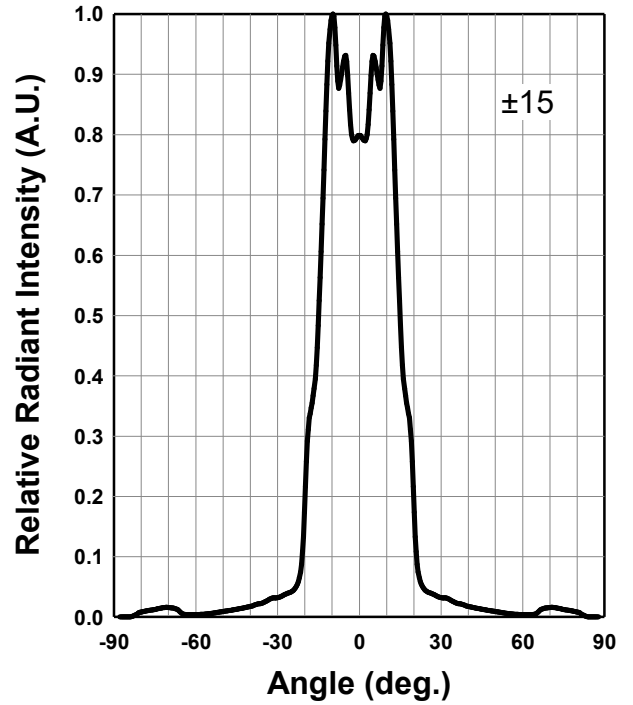




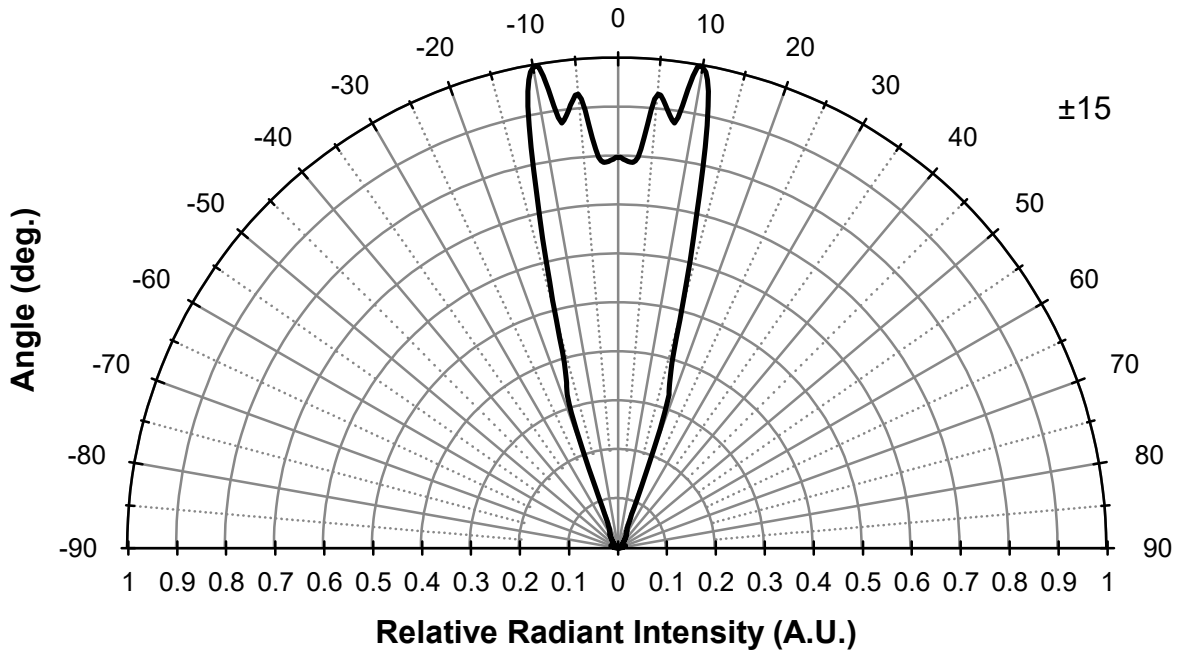
### Relative Spectral Emission



### Radiation Characteristics



### Radiation Characteristics



## Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

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

Product data and parameters may vary by user application and over time.

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