

**L450R-01**

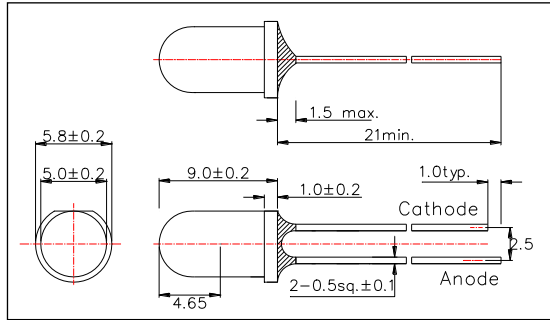
Blue LED Lamp with UV Resistant Resin

L450R-01 is an InGaN LED mounted on a lead frame with UV resistant resin. On forward bias, it emits a band of visible light that peaks 450nm. This R series is designed for long life under UV wavelength.

<Specifications>

1. Product Name: Blue LED Lamp
2. Type Number: L450R-01
3. Chip:
  - Chip material: InGaN
  - Peak Wavelength: 450nm typ.
4. Package
  - Type: Φ5mm clear molding
  - Resin Material: Silicone Resin
  - Lead Frame: Soldered(Lead Free)

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	120	mW
Forward Current	IF	30	mA
Pulse Forward Current*	IFP	100	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	270	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature**	TSOL	250	°C

\* Duty=1% and Pulse Width=10us.

\*\* Soldering condition must be completed within 5 second at 250°C.

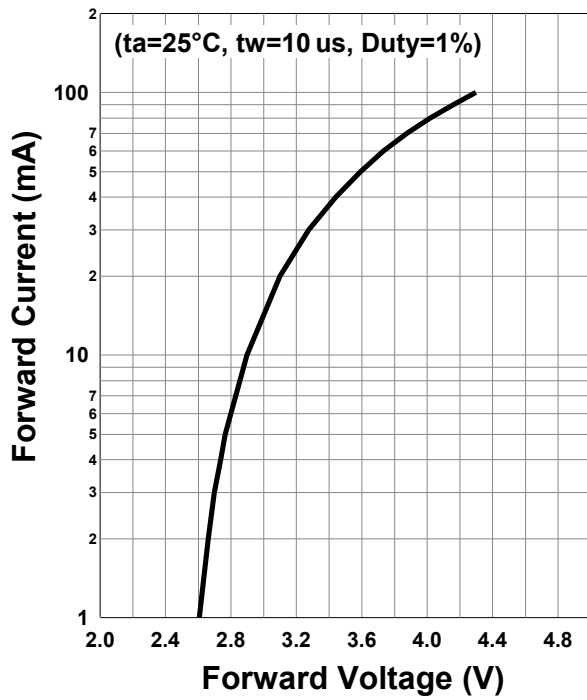
Electro-Optical Characteristics [Ta=25°C ]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		3.1	4.0	V
	VFP	IFP=100mA		4.4		
Radiated Power*	PO	IF=20mA		20		mW
		IFP=100mA		80		
Radiant Intensity**	IE	IF=20mA		55		mW/sr
		IFP=100mA		220		
Peak Wavelength	λP	IF=20mA	440	450	460	nm
Half Width	Δλ	IF=20mA		20		nm
Viewing Half Angle	θ1/2	IF=20mA		±9		deg
Rise Time	Tr	IF=20mA		60		ns
Fall Time	tf	IF=20mA		50		ns

\* Measured by S3584-08

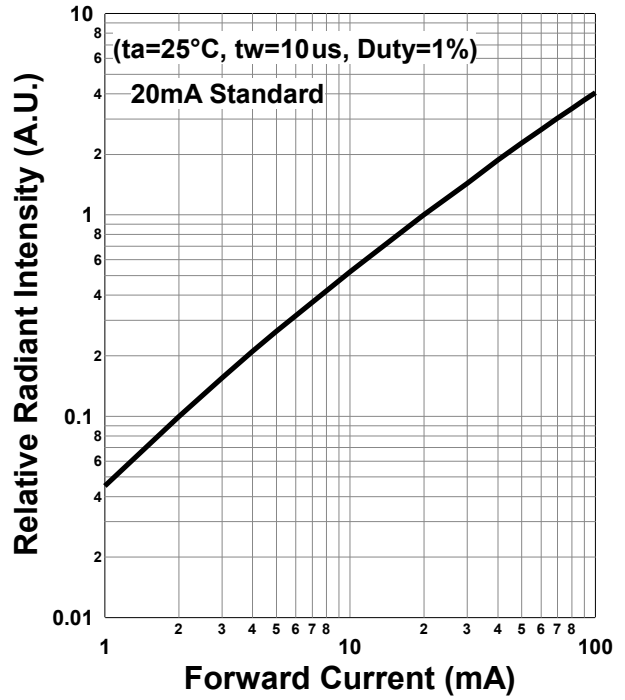
\*\* Measured by CIE127-2007 Condition B



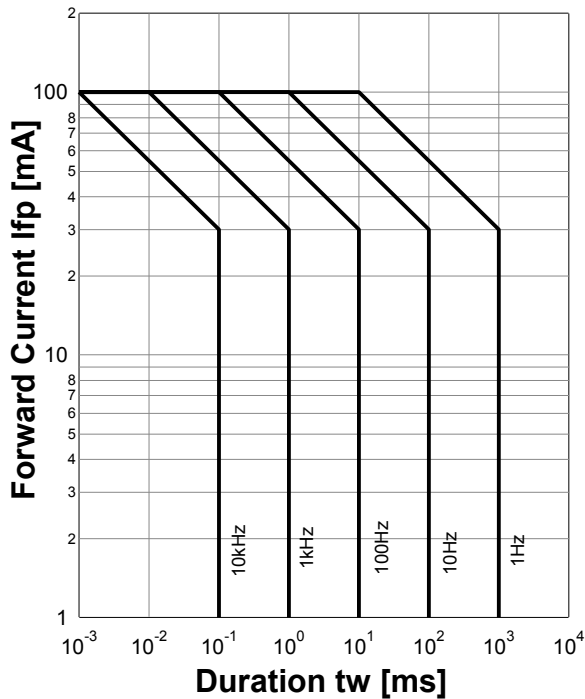
**Forward Current - Forward Voltage**



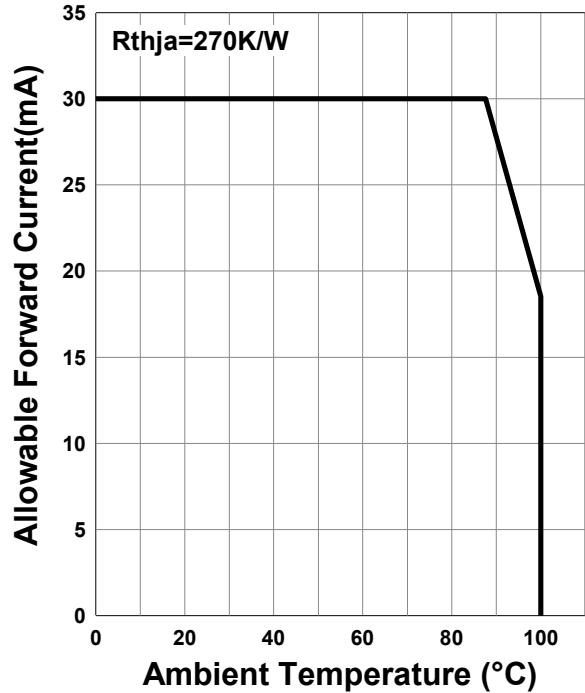
**Relative Radiant Intensity - Forward Current**

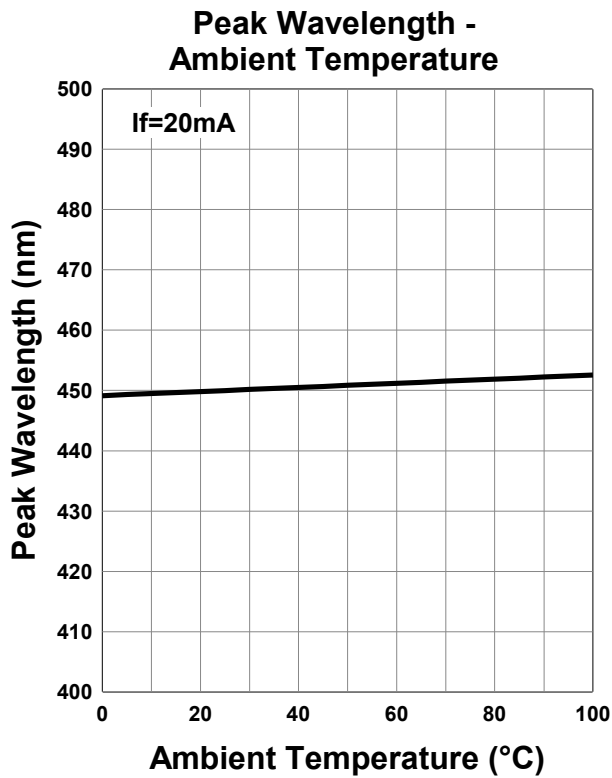
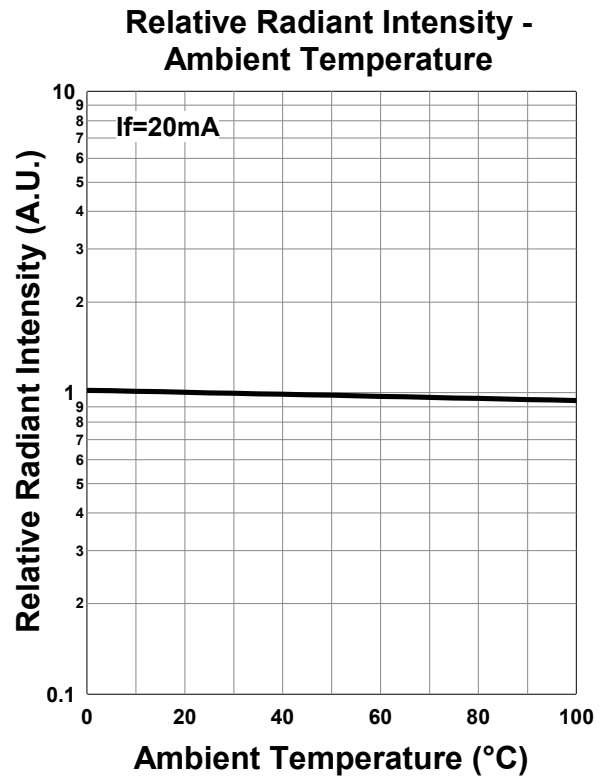
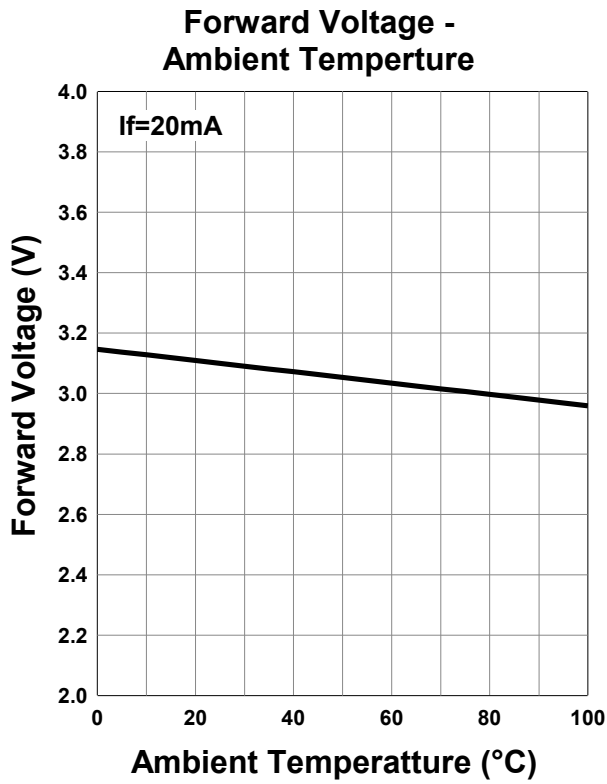


**Forward Current - Pulse Duration**

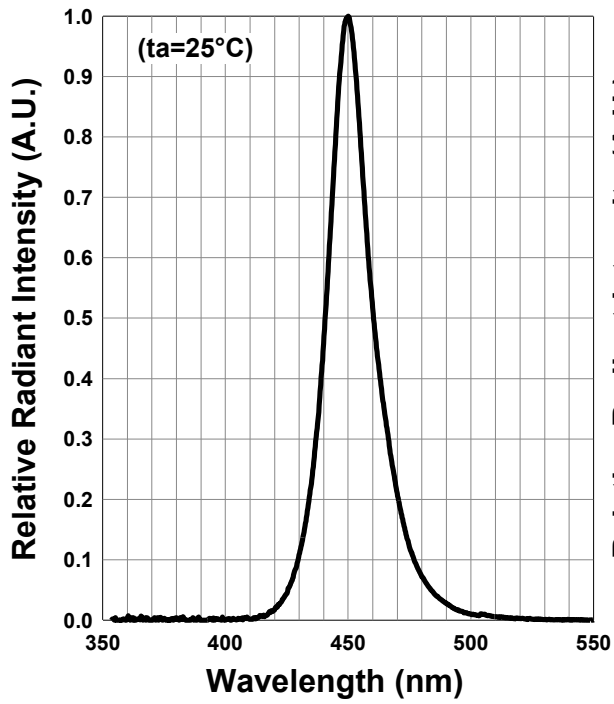


**Allowable Forward Current - Ambient Temperature**

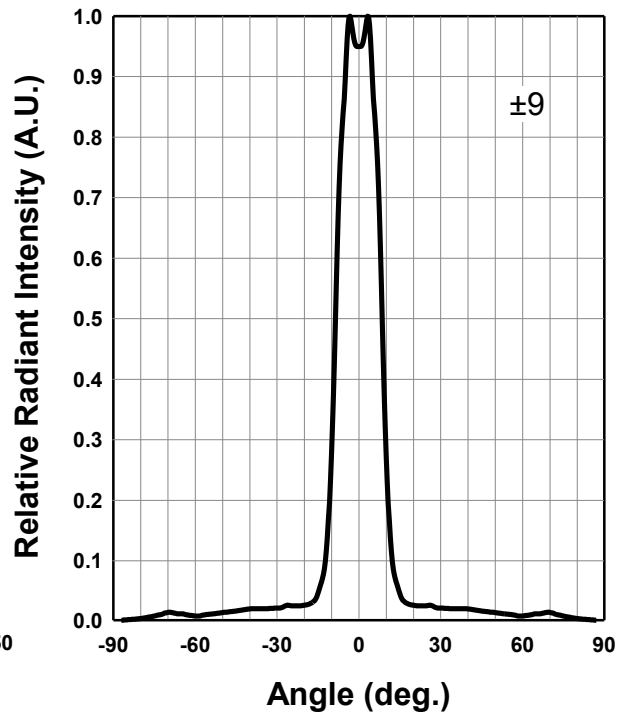




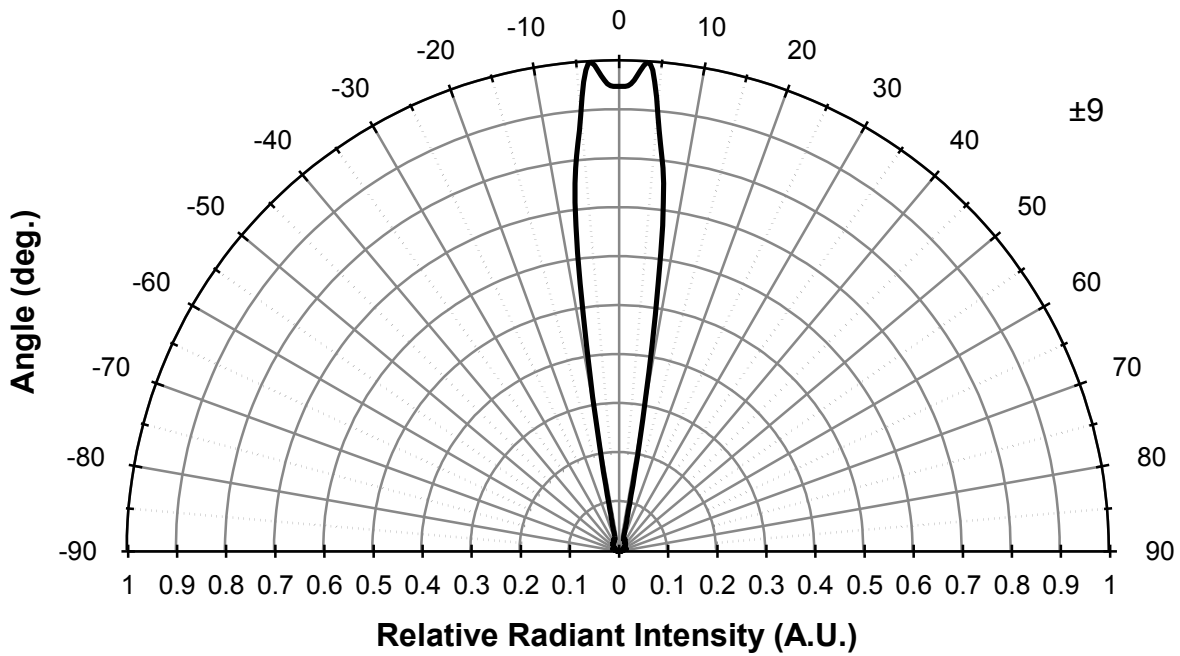
**Relative Spectral Emission**



**Radiation Characteristics**



**Radiation Characteristics**



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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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