

L450R-33

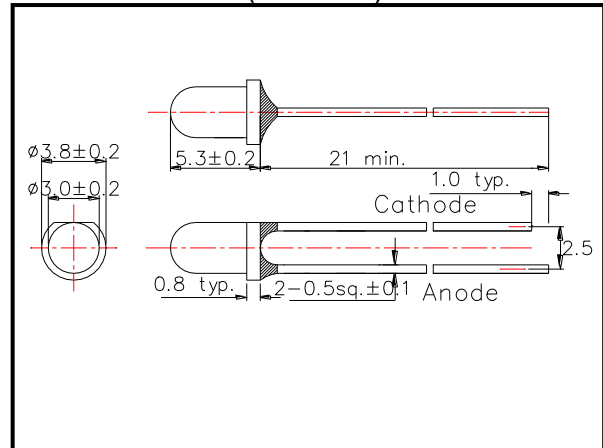
Blue LED Lamp with UV resistant resin

L450R-33 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 No. L450R-33
- 3) Chip
 - (1) Chip Material InGaN
 - (2) Peak Wavelength 450nm typ.
- 4) Package
 - (1) Type Φ3mm clear molding
 - (2) Resin Material Silicone Resin
 - (3) Lead Frame Soldered (Lead Frame)

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	180	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

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

‡Soldering condition: Soldering condition must be completed within 3 seconds at 250°C

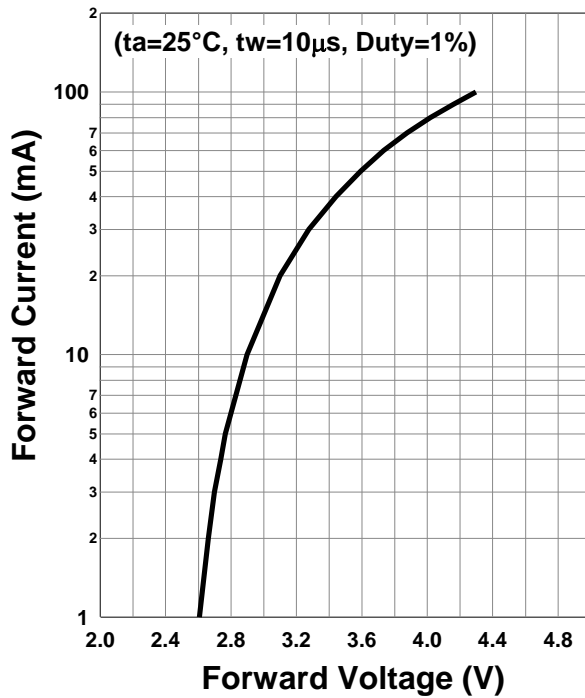
◆ Electro-Optical Characteristics [Ta=25°C typ.]

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		35		mW/sr
		IFP=100mA		140		
Peak Wavelength	λP	IF =20mA	440	450	460	nm
Half Width	Δλ	IF =20mA		20		nm
Viewing Half Angle	θ 1/2	IF =20mA		±16		deg.

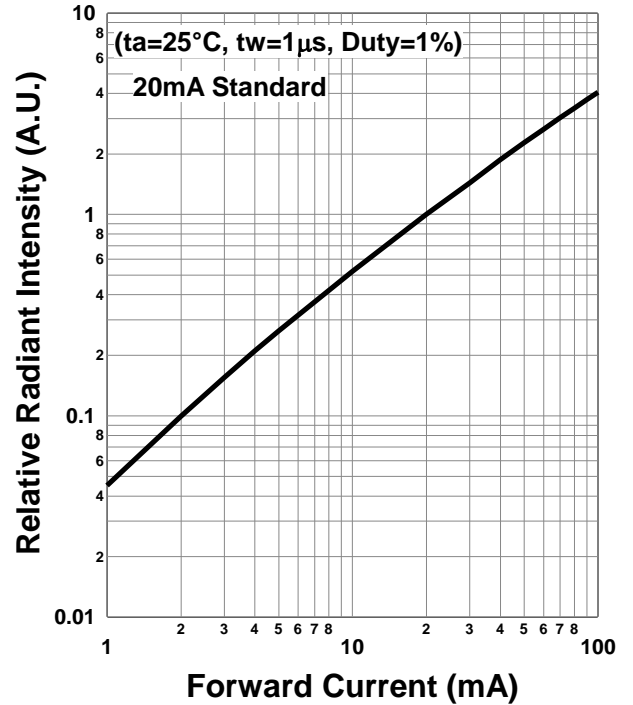
‡Radiated Power is measured by S3584-08.

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

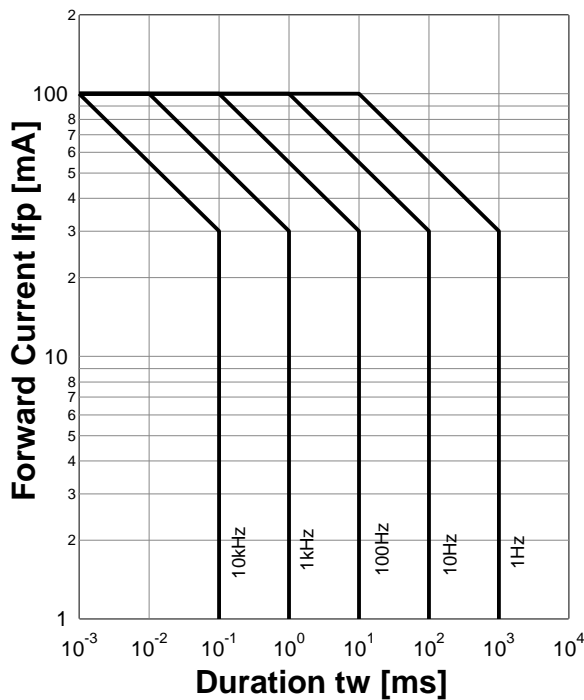
Forward Current - Forward Voltage



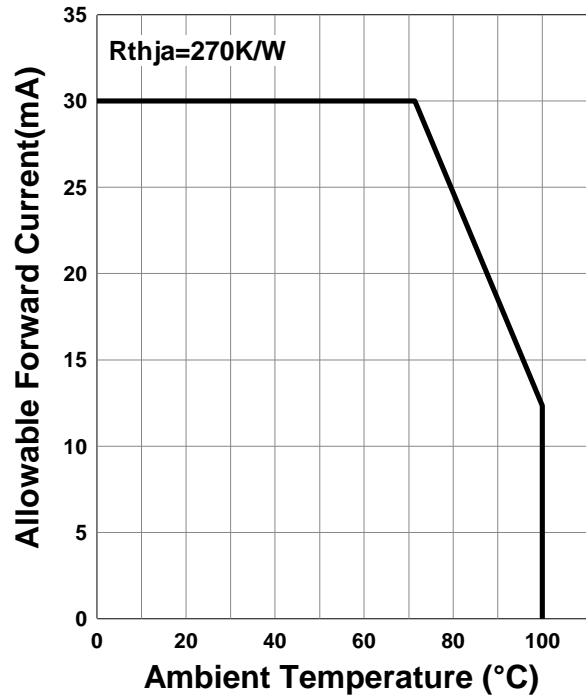
Relative Radiant Intensity - Forward Current



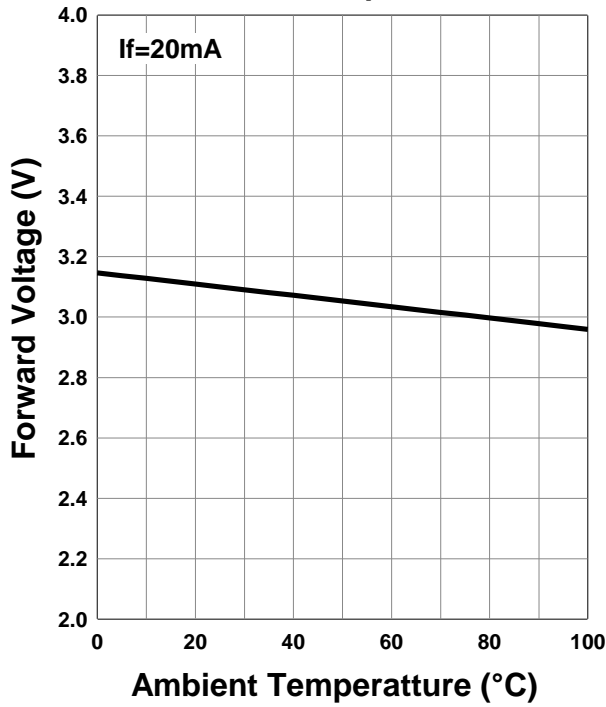
Forward Current - Pulse Duration



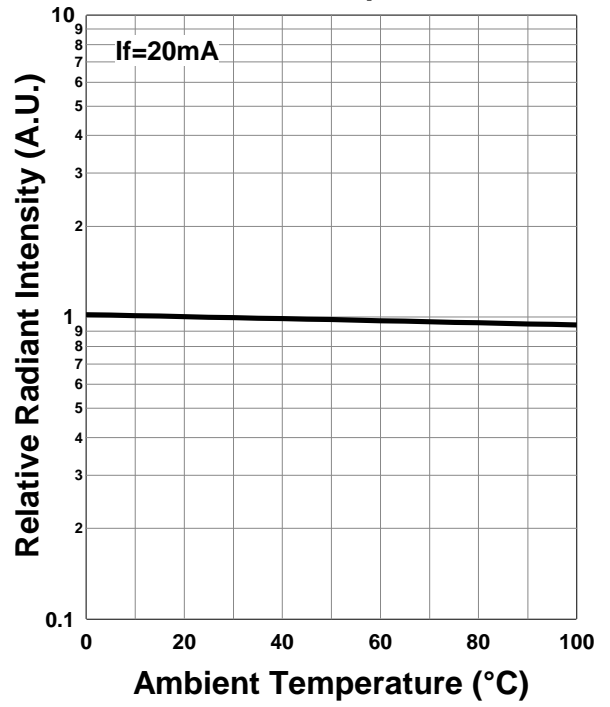
Allowable Forward Current - Ambient Temperature



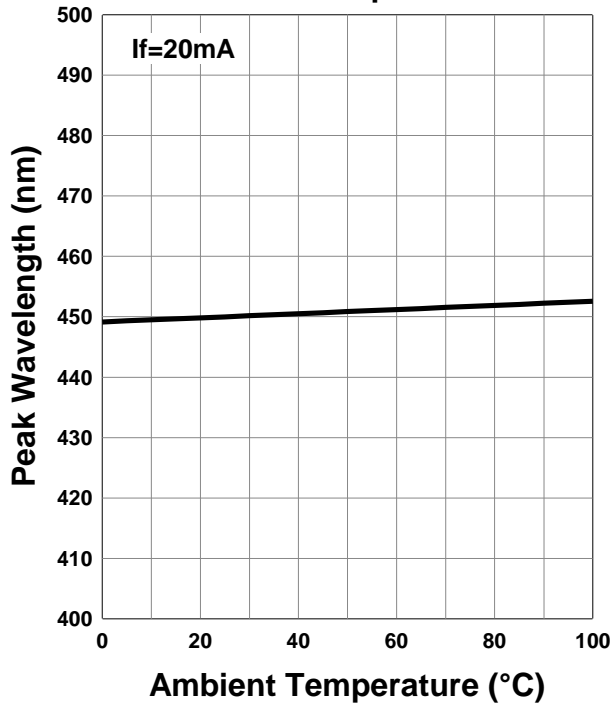
Forward Voltage - Ambient Temperature



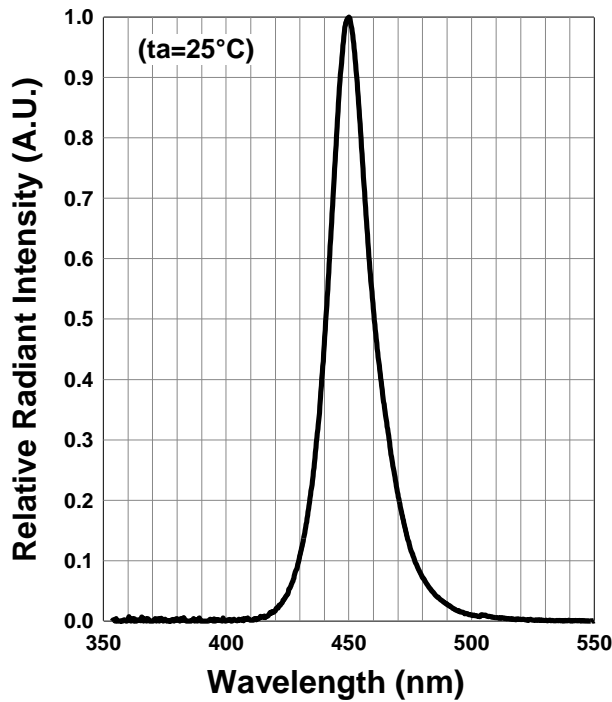
Relative Radiant Intensity - Ambient Temperature



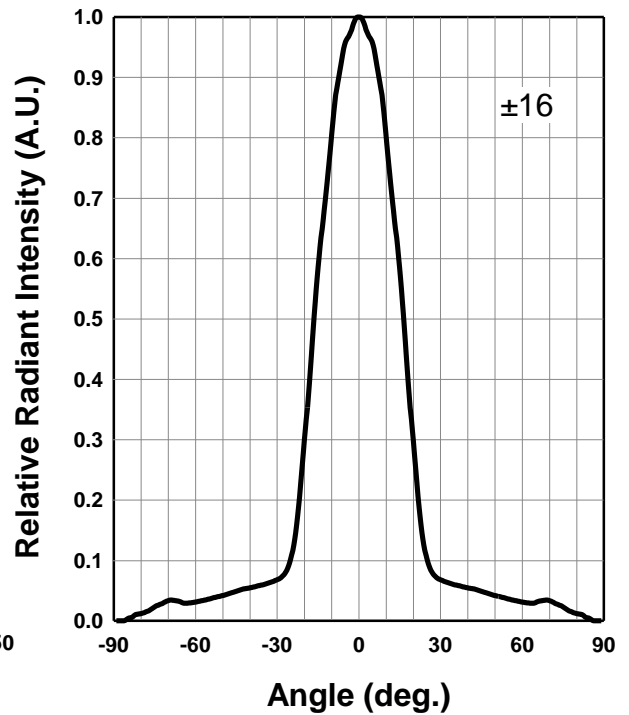
Peak Wavelength - Ambient Temperature



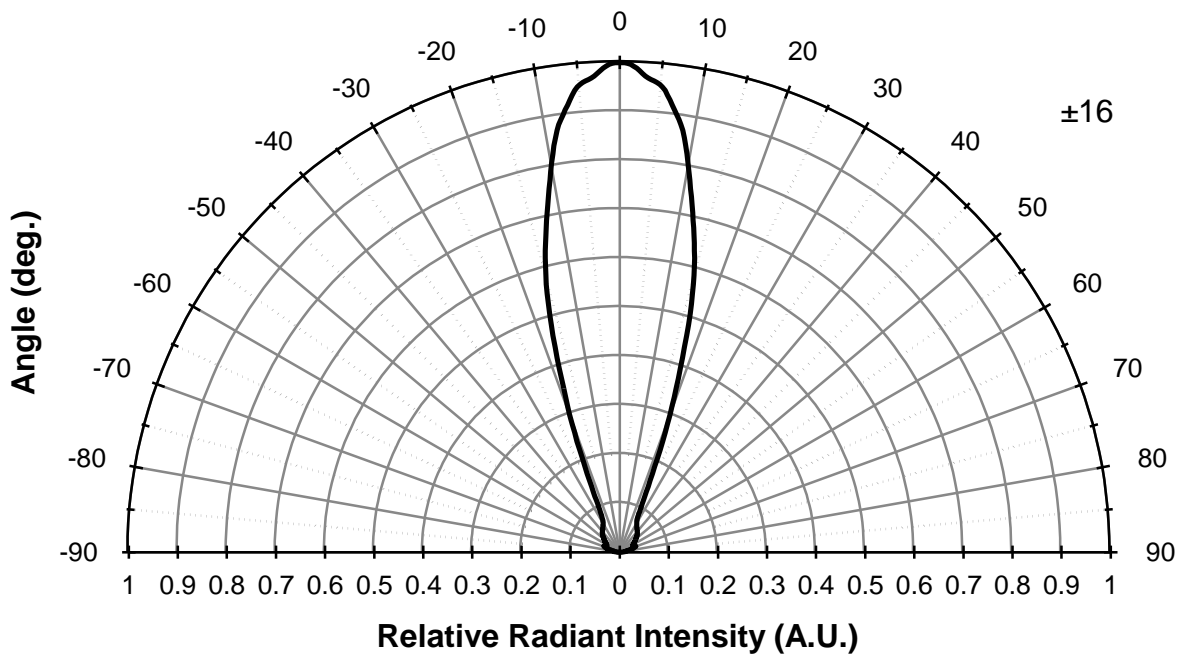
Relative Spectral Emission



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

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