Data Sheet

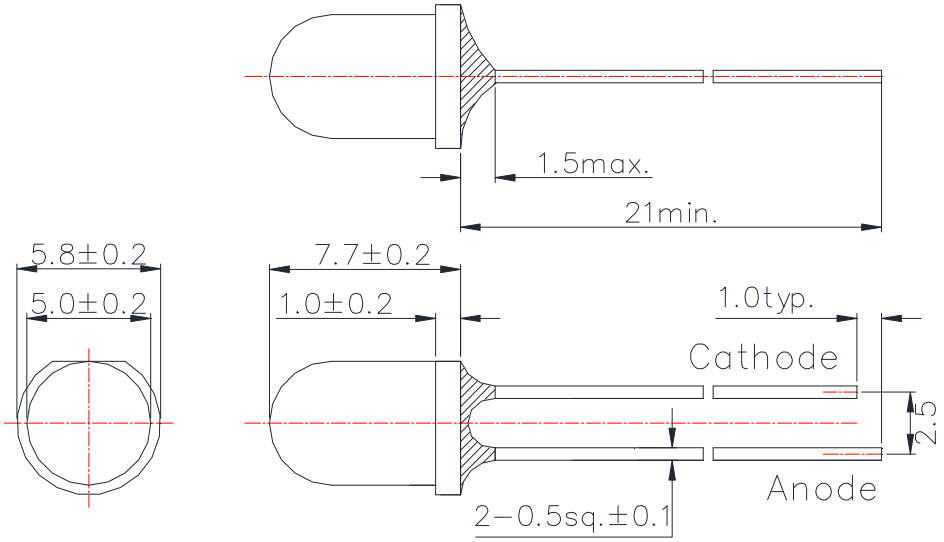
PRELIMINARY

L430R-04

Blue LED Lamp

USHIO

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaN
- Chip Dimension : 350um * 350um
- Number of Chips : 1pce
- Peak Wavelength : 430nm typ.
- Package Type : ϕ5mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : UV 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	Rthja	180	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-20 ~ +100	°C
Storage Temperature	Tstg	-20 ~ +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)

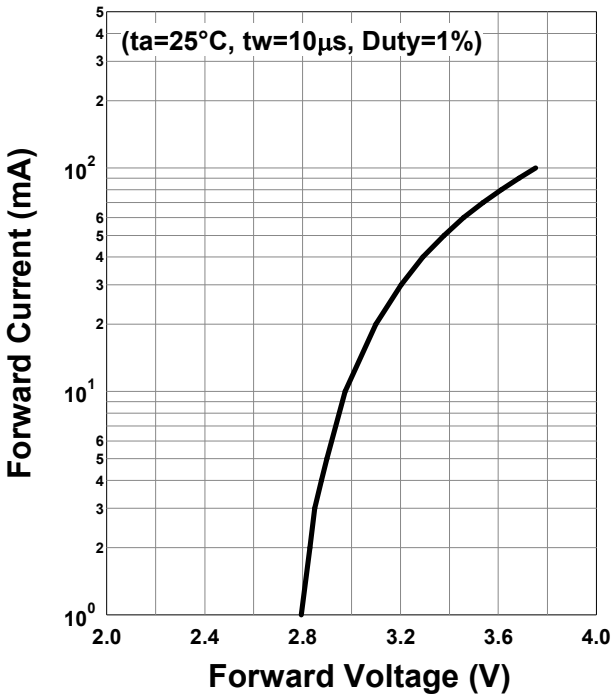
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		3.1	4.0	V	IF=20mA
	VFP		3.8			IFP=100mA
Total Radiated Power	PO		27		mW	IF=20mA
			100			IFP=100mA
Radiant Intensity	IE		84		mW/sr	IF=20mA
			330			IFP=100mA
Luminous Flux	ΦV		380		mlm	IF=20mA
Peak Wavelength	λp	420		440	nm	IF=20mA
Dominant Wavelength	λD		437		nm	IF=20mA
Half Width	Δλ		16		nm	IF=20mA
Viewing Half Angle	θ1/2		±12		deg.	IF=20mA
Rise Time	tr		20		ns	IF=20mA
Fall Time	tf		20		ns	IF=20mA

‡ Radiated Power is measured by S3584-08.

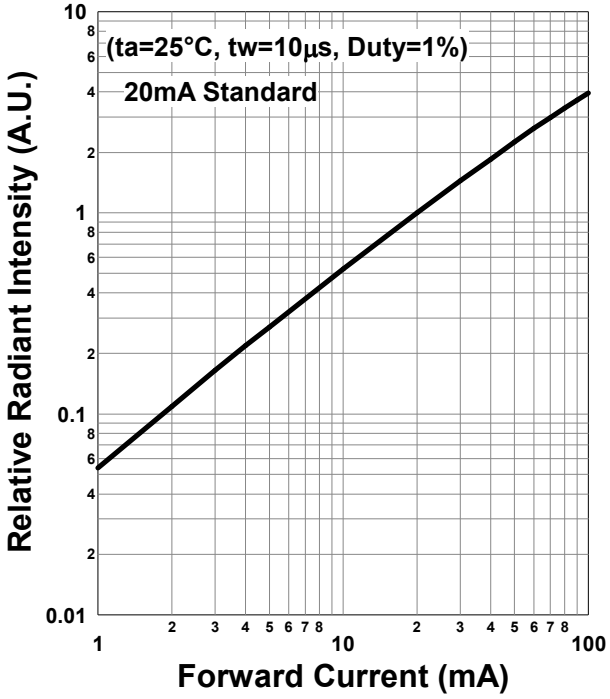
‡ Radiant Intensity is measured by CIE127-2007 Condition B.

Typical Characteristic Curves

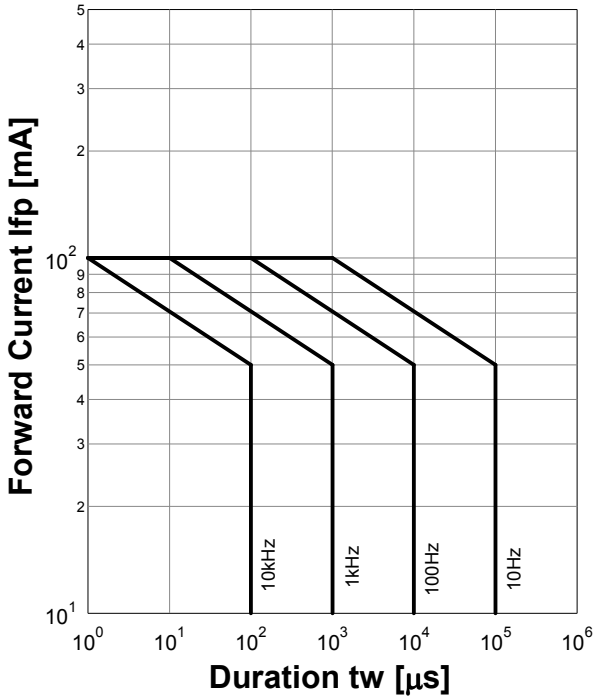
Forward Current - Forward Voltage



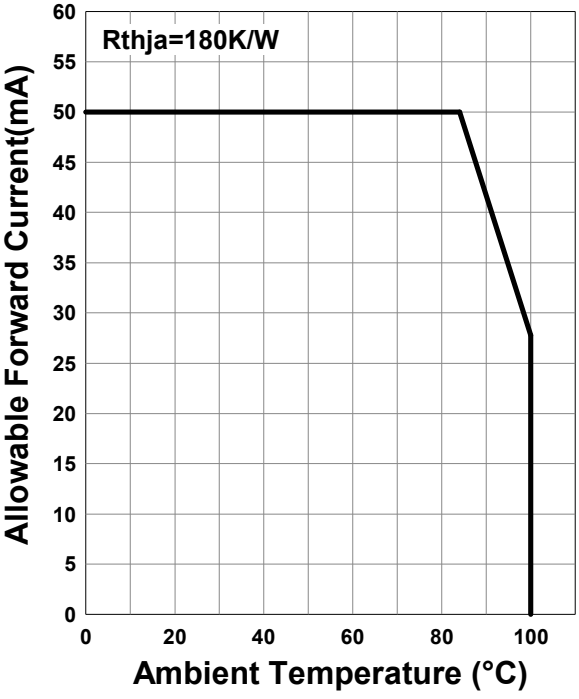
Relative Radiant Intensity - Forward Current



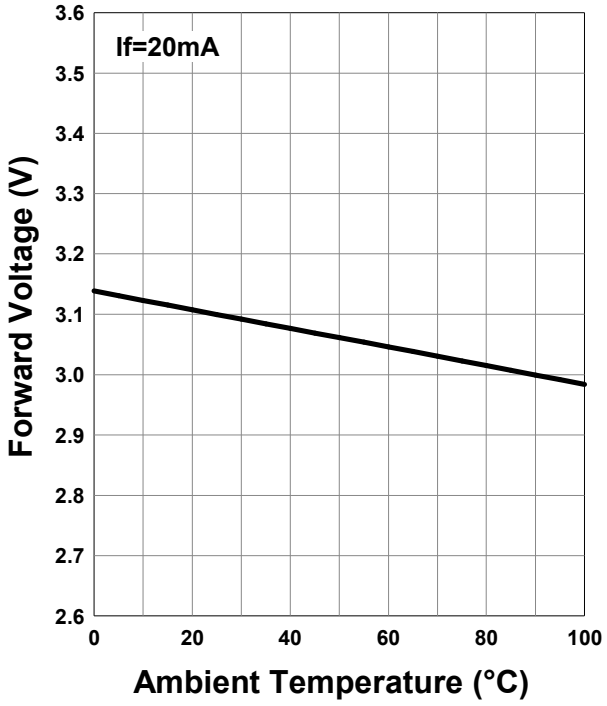
Forward Current - Pulse Duration



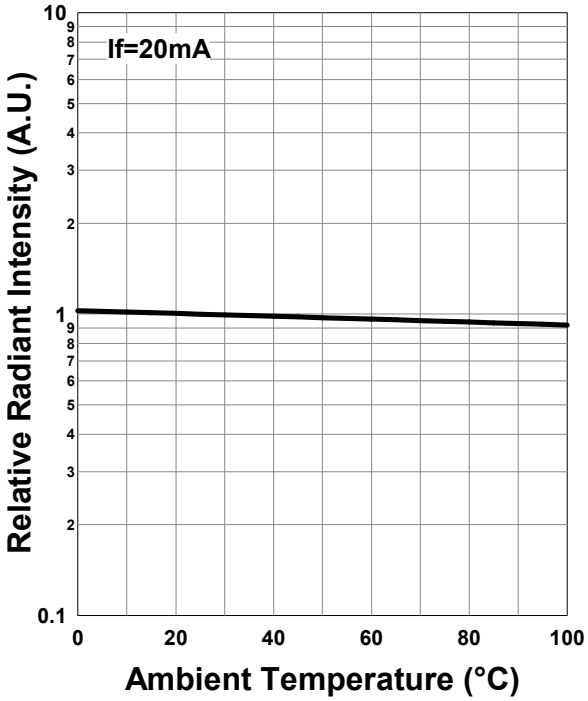
Allowable Forward Current - Ambient Temperature



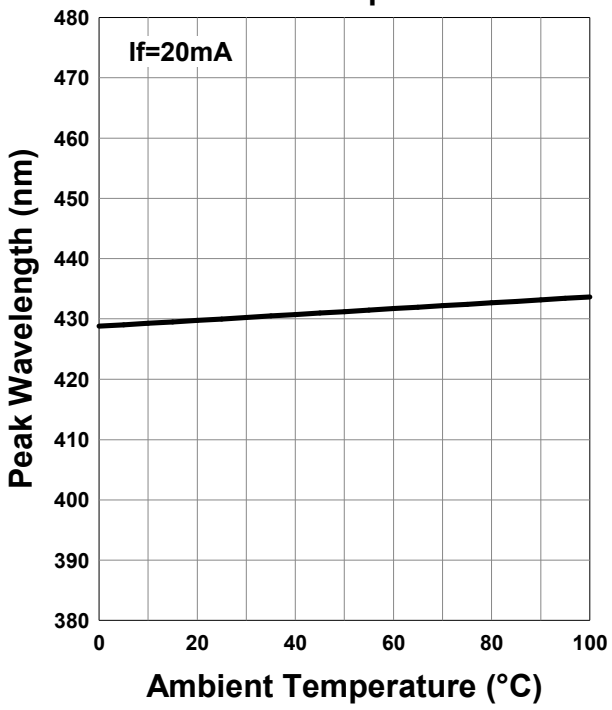
Forward Voltage - Ambient Temperture



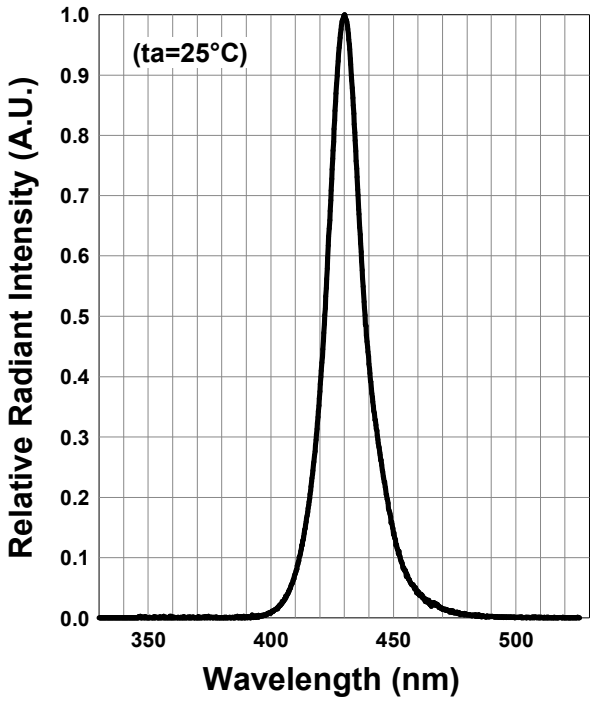
Relative Radiant Intensity - Ambient Temperature



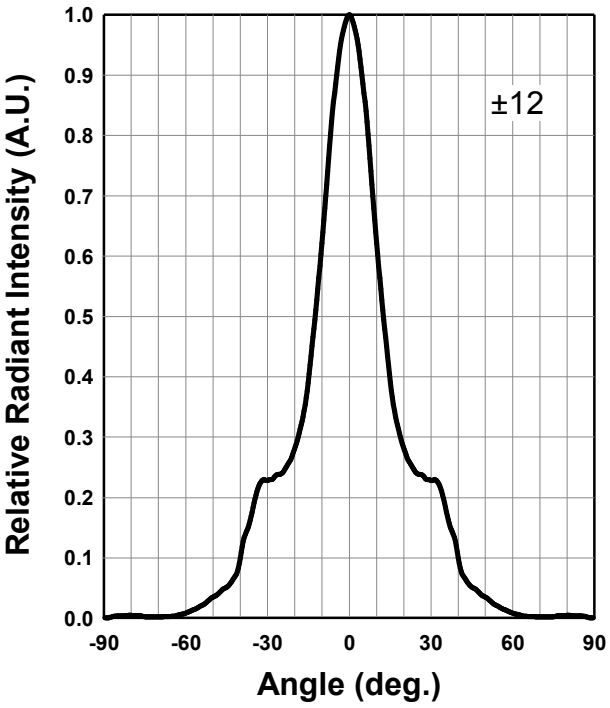
Peak Wavelength - Ambient Temperature



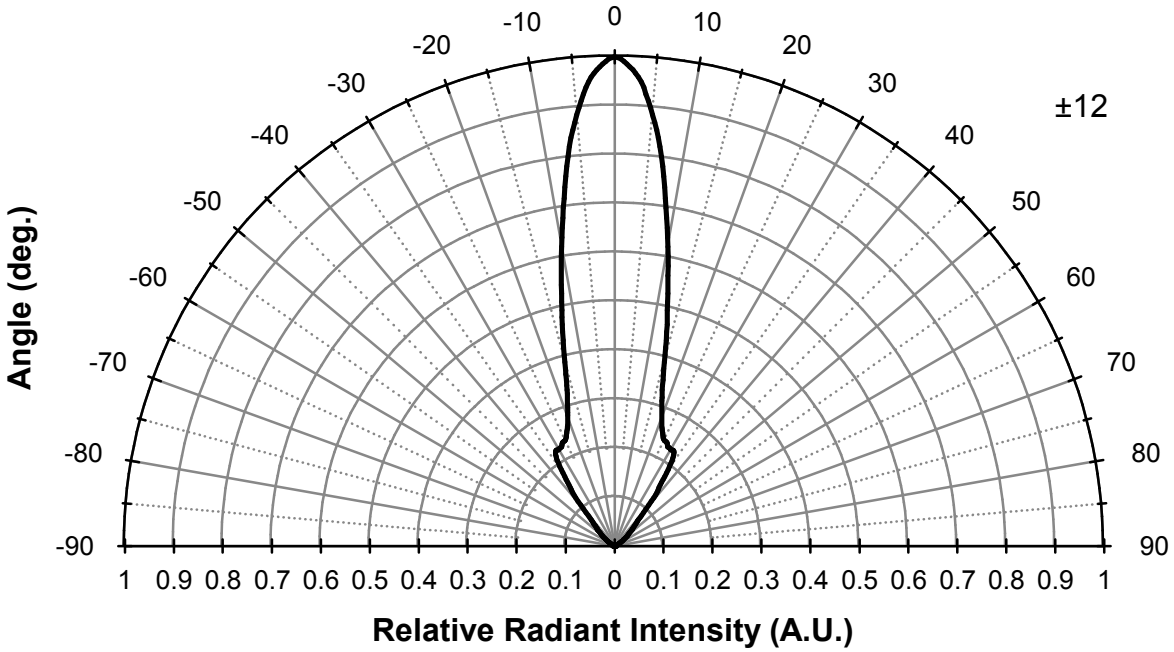
Relative Spectral Emission



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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*Effective July 2016, Ushio Epitex Inc. is now USHIO OPTO SEMICONDUCTORS, INC.