

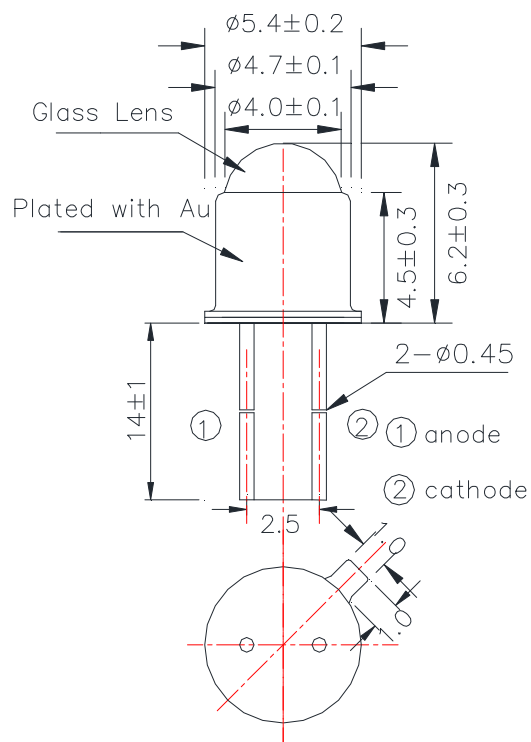
Data Sheet

L610-35M32

Stem type LED Lamp

USHIO

Outline and Internal Circuit



(Unit : mm)

Features

- Non-hermetic package
- Chip Material : AlGaInP
- Chip Dimension : 350um * 350um
- Number of Chips : 1pce
- Peak Wavelength : 610nm typ.
- Stem: TO-18 type
- Lens : Glass Ball Lens
- Cap : Gold Plated

Application

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	120	mW
Forward Current	IF	50	mA
Pulse Forward Current	IFP	100	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	300	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 5 seconds at 250°C and

is allowed in the area apart 3mm from the bottom of the lamp.

Optical and Electrical Characteristics (Tc=25°C)

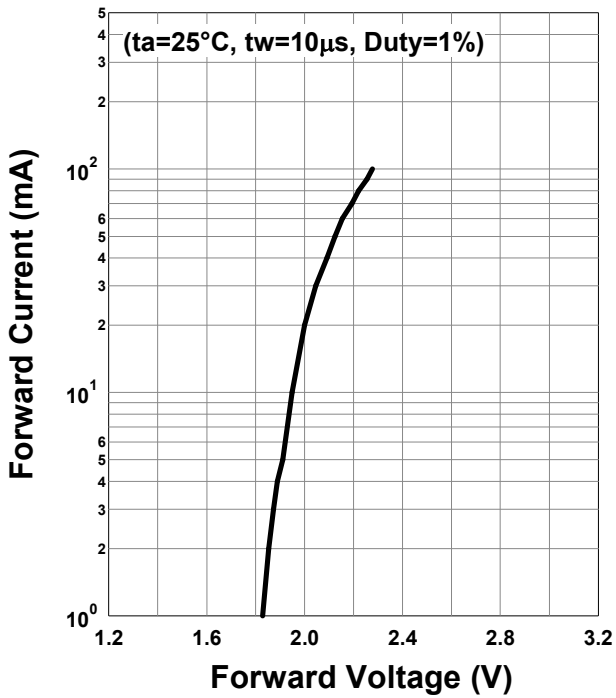
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		2.0	2.3	V	IF=20mA
	VFP		2.3			IFP=100mA
Total Radiated Power	PO		4.8		mW	IF=20mA
			23			IFP=100mA
Radiant Intensity	IE		13		mW/sr	IF=20mA
			63			IFP=100mA
Luminous Flux	ΦV		2000		mlm	IF=20mA
Peak Wavelength	λp	600		620	nm	IF=20mA
Dominant Wavelength	λD		604		nm	IF=20mA
Half Width	Δλ		15		nm	IF=20mA
Viewing Half Angle	θ1/2		±15		deg.	IF=20mA
Rise Time	tr		20		ns	IF=20mA
Fall Time	tf		20		ns	IF=20mA

‡ Radiated Power is measured by S3584-08.

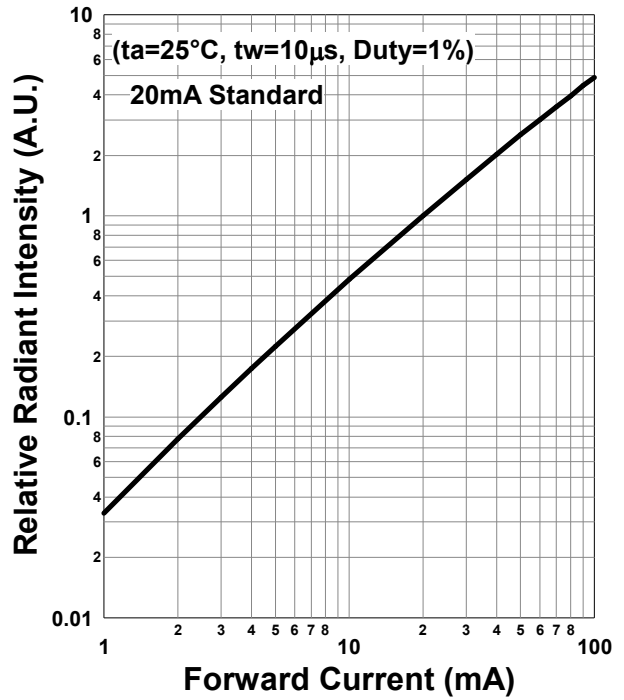
‡ Radiant Intensity is measured by CIE127-2007 Condition B.

Typical Characteristic Curves

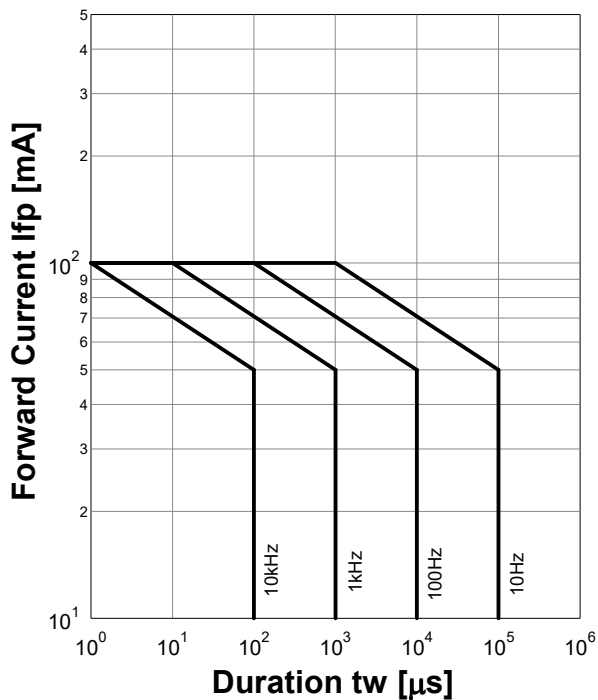
Forward Current - Forward Voltage



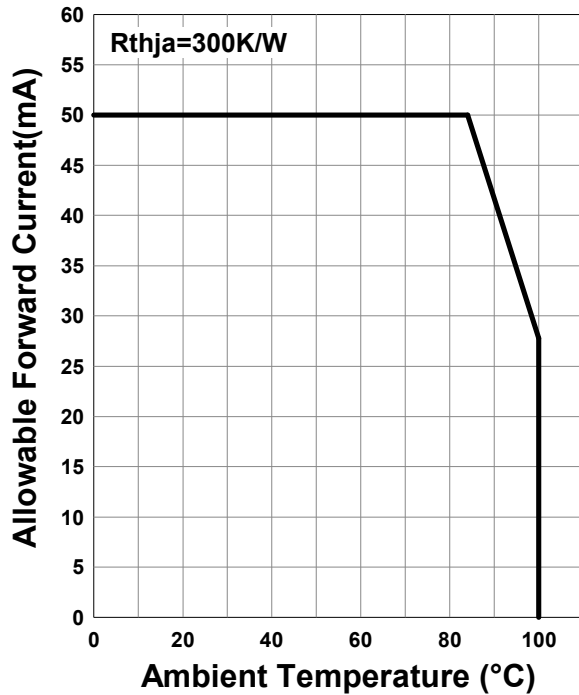
Relative Radiant Intensity - Forward Current



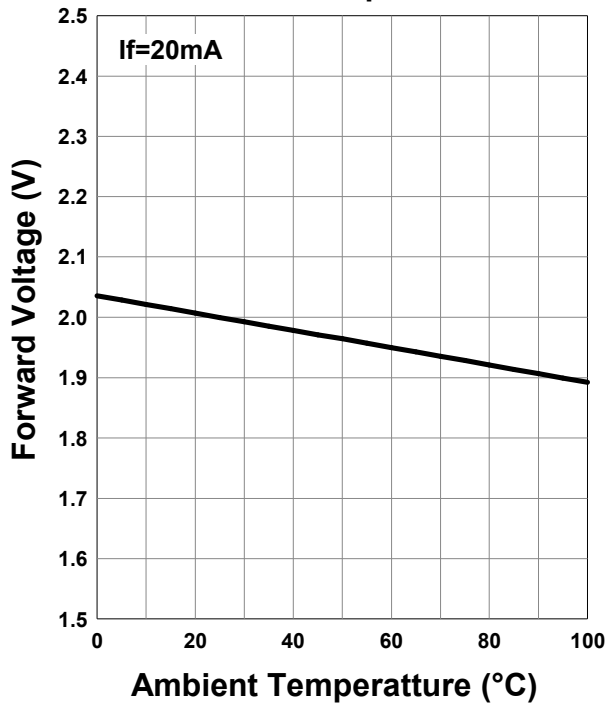
Forward Current - Pulse Duration



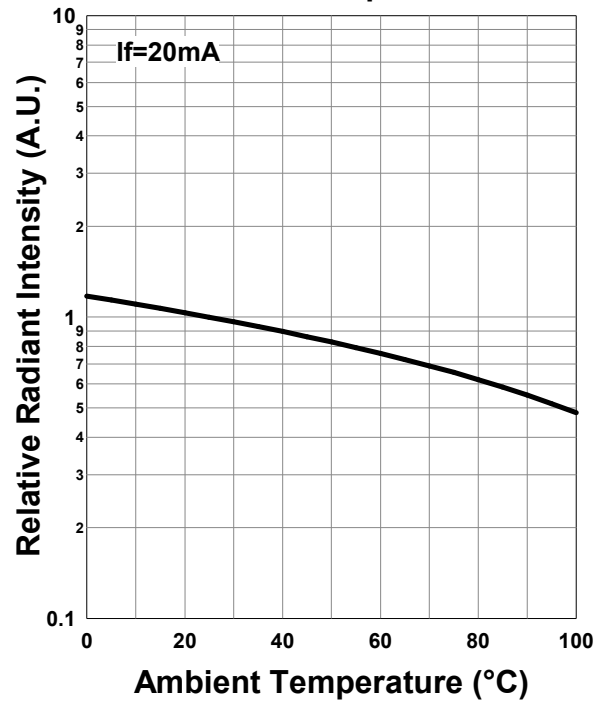
Allowable Forward Current - Ambient Temperature



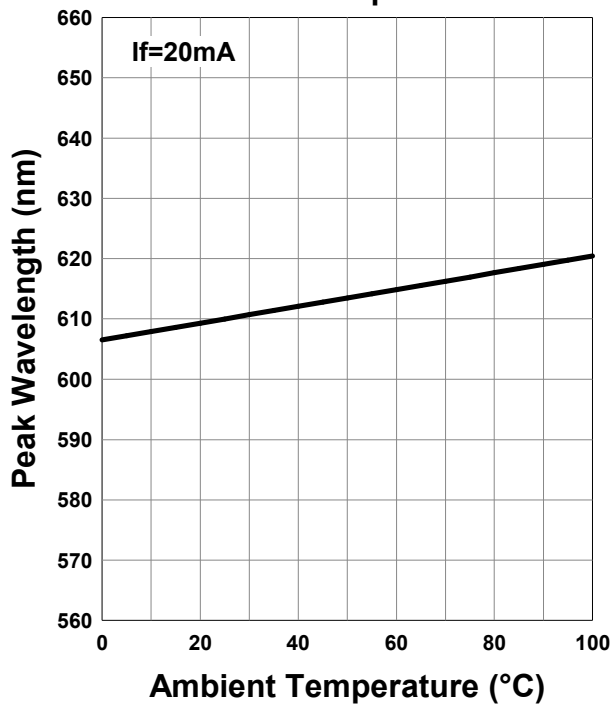
Forward Voltage - Ambient Temperature



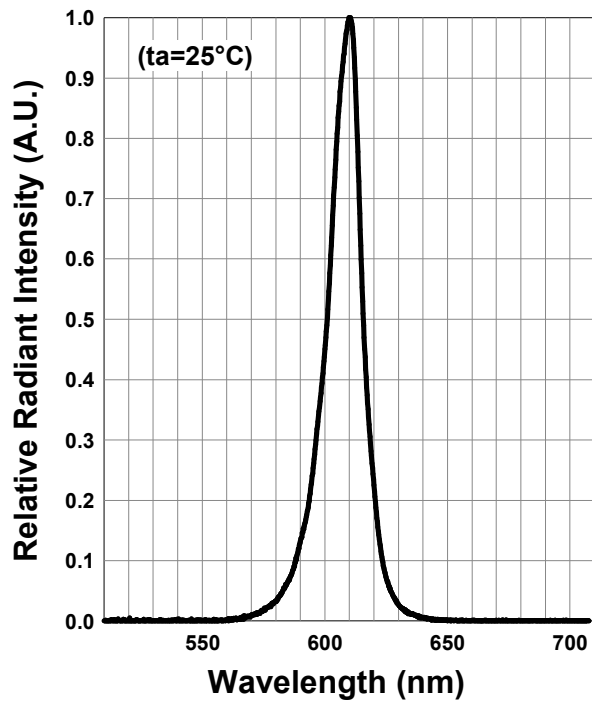
Relative Radiant Intensity - Ambient Temperature



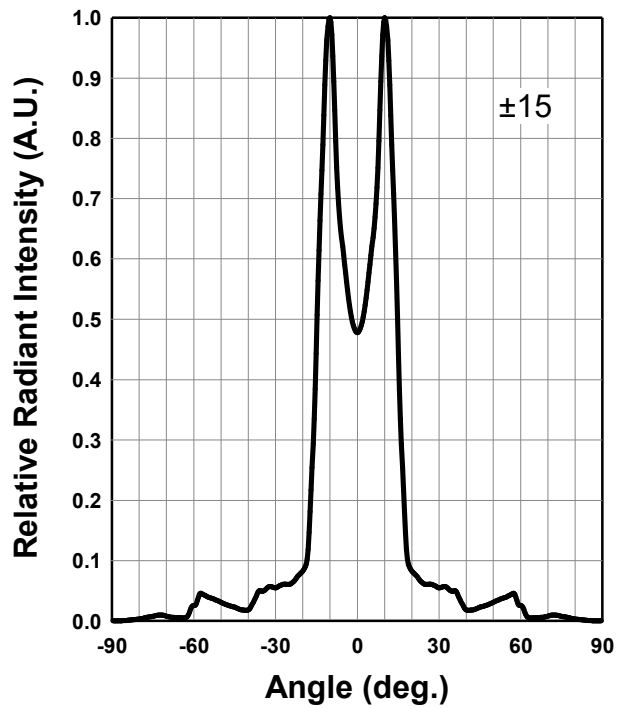
Peak Wavelength - Ambient Temperature



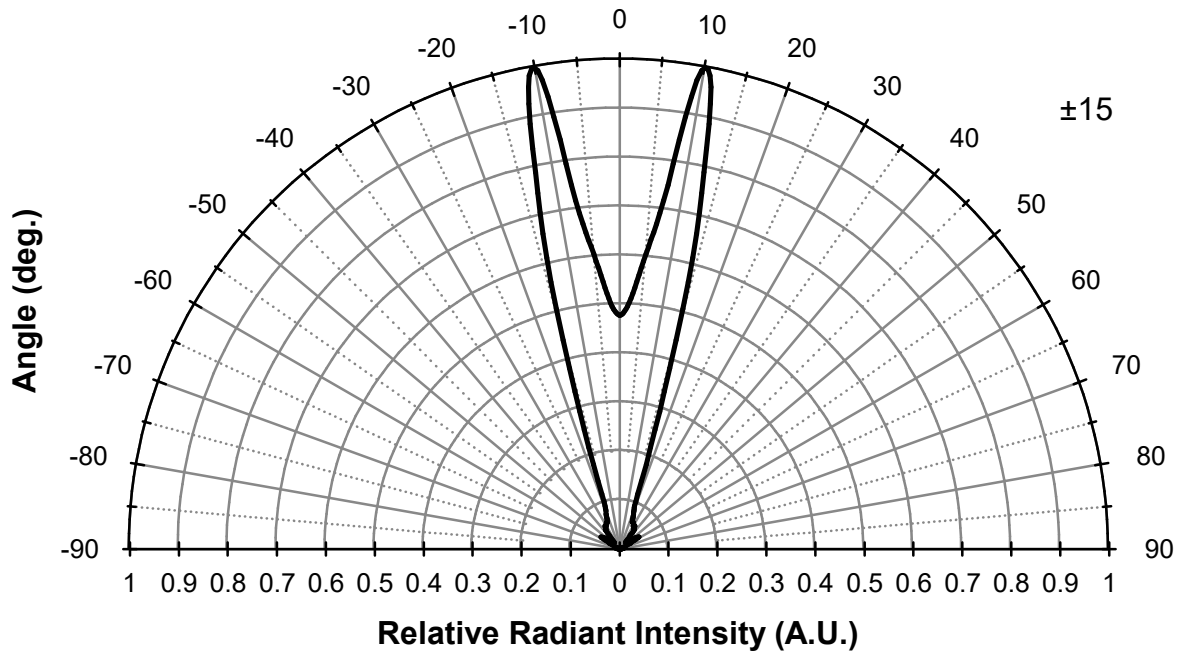
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



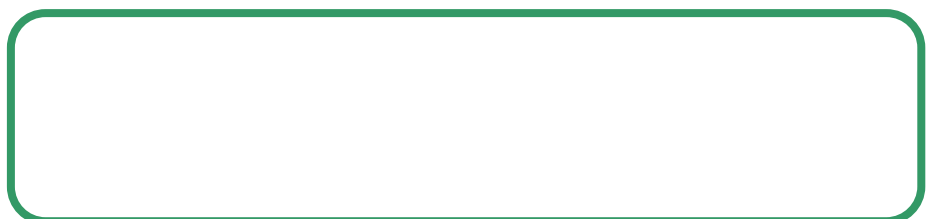
Disclaimer

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