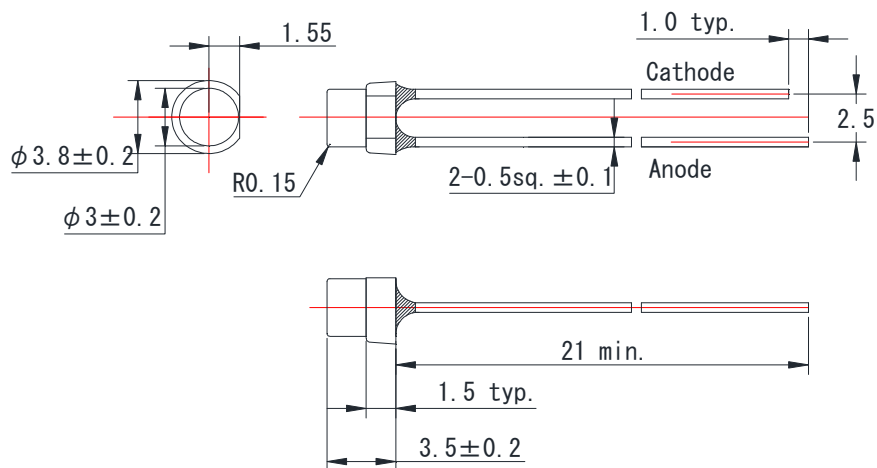


# L660N-31-2C

High Bright Red LED Lamp

## Outline and Internal Circuit



(Unit : mm)

## Features

- Chip Material : AlGaInP
- Chip Dimension : 350um \* 350um
- Number of Chips : 1pce
- Peak Wavelength : 660nm typ.
- Package Type :  $\phi 5$ mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

## Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	120	mW
Forward Current	IF	50	mA
Pulse Forward Current	IFP	300	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjs	160	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +100	°C

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

‡Soldering condition : Refer to technical support information on the website.

## Optical and Electrical Characteristics (Tc=25°C)

(\*: 100% testing, \*\*: reference value)

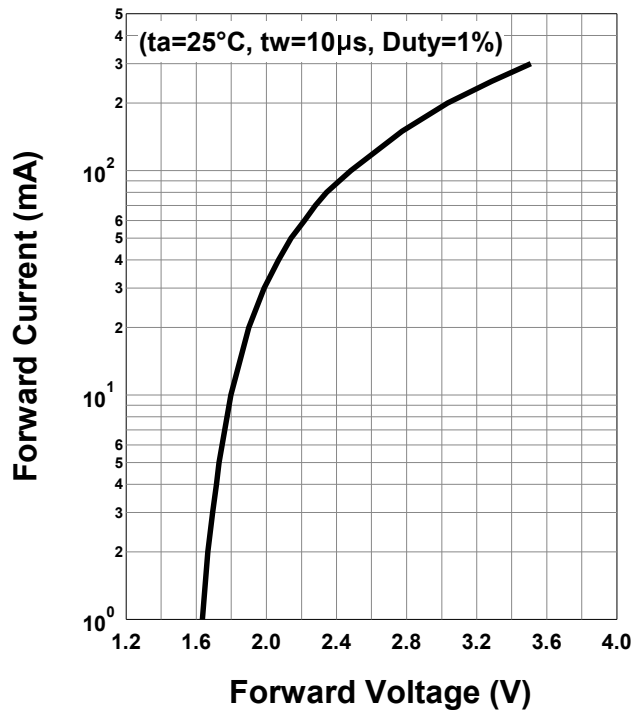
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		1.9	2.3	V	IF=20mA*
	VFP		3.5			IFP=300mA**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	7	10		mW	IF=20mA*
			130			IFP=300mA**
Radiant Intensity	IE		2.3		mW/sr	IF=20mA**
			29			IFP=300mA**
Luminous Flux	ΦV		670		mlm	IF=20mA**
Peak Wavelength	λp	650		670	nm	IF=20mA*
Dominant Wavelength	λD		640		nm	IF=20mA**
Half Width	Δλ		16		nm	IF=20mA**
Viewing Half Angle	θ1/2		±9		deg.	IF=20mA**
Rise Time	tr		10		ns	IF=20mA**
Fall Time	tf		10		ns	IF=20mA**

‡ Radiated Power is measured by S3584-08.

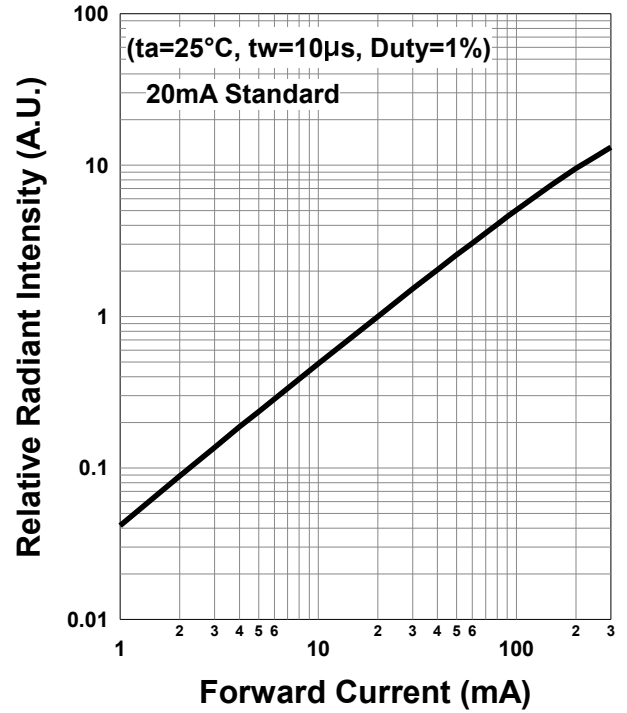
‡ Radiant Intensity is measured by CIE127-2007 Condition B.

## Typical Characteristic Curves

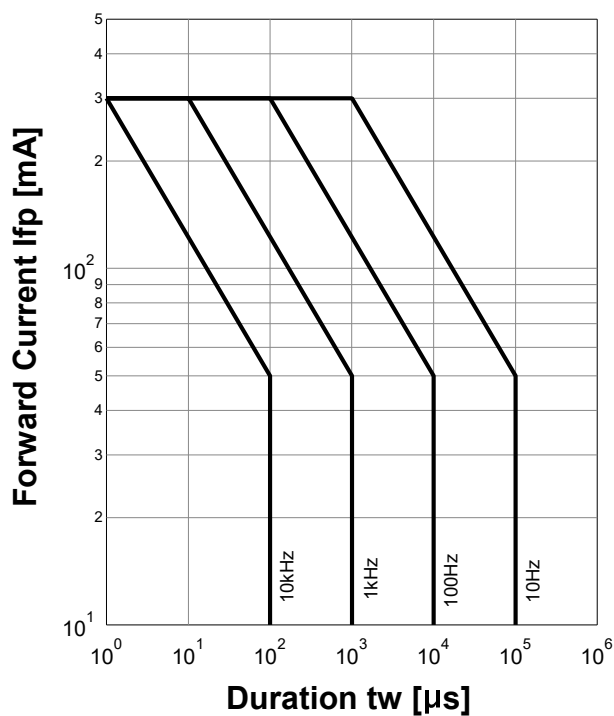
### Forward Current - Forward Voltage



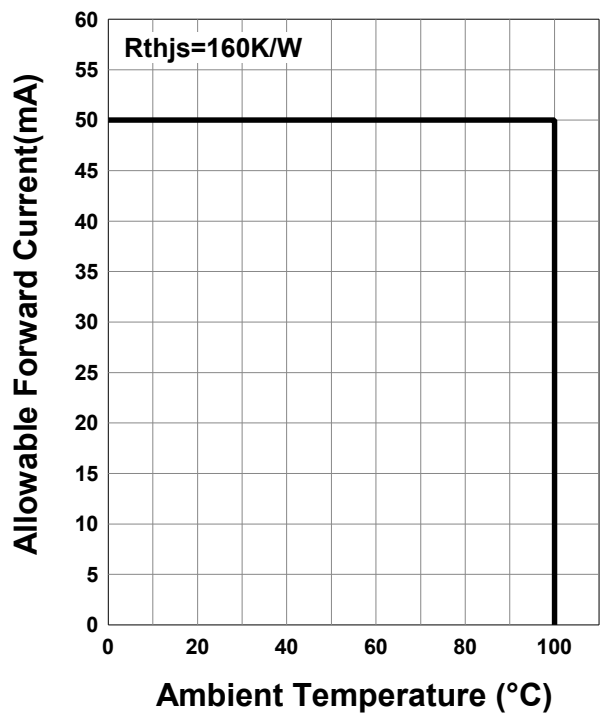
### Relative Radiant Intensity - Forward Current



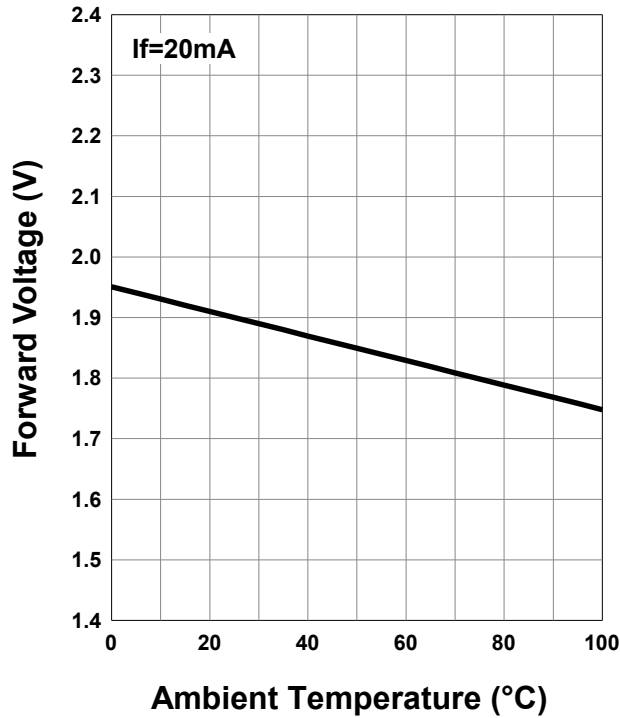
### Forward Current - Pulse Duration



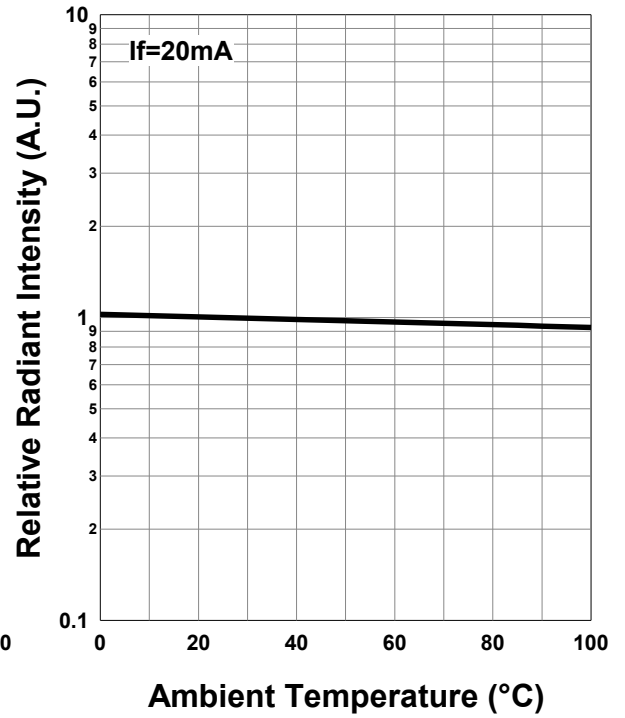
### Allowable Forward Current - Ambient Temperature



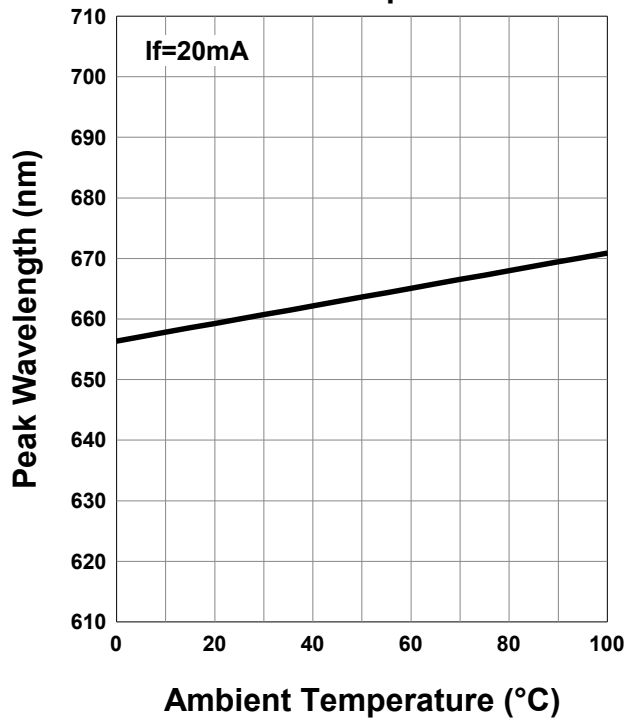
### Forward Voltage - Ambient Temperature



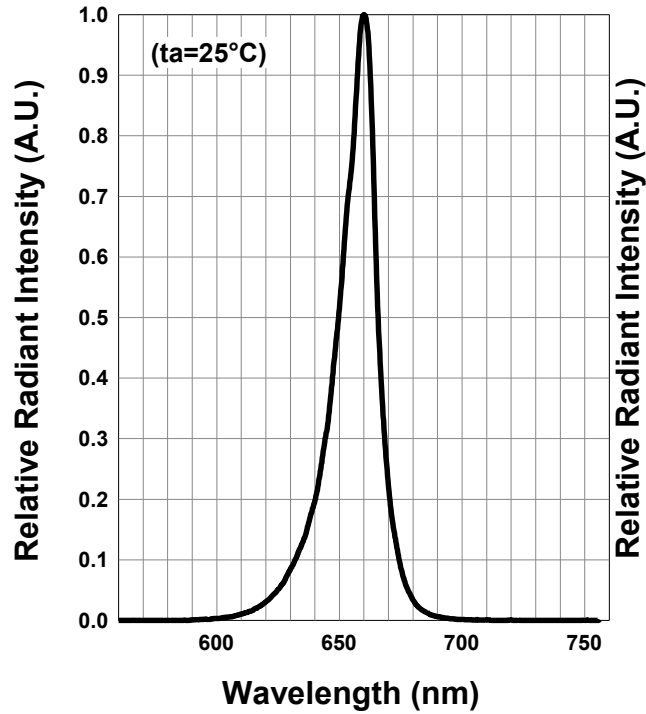
### Relative Radiant Intensity - Ambient Temperature



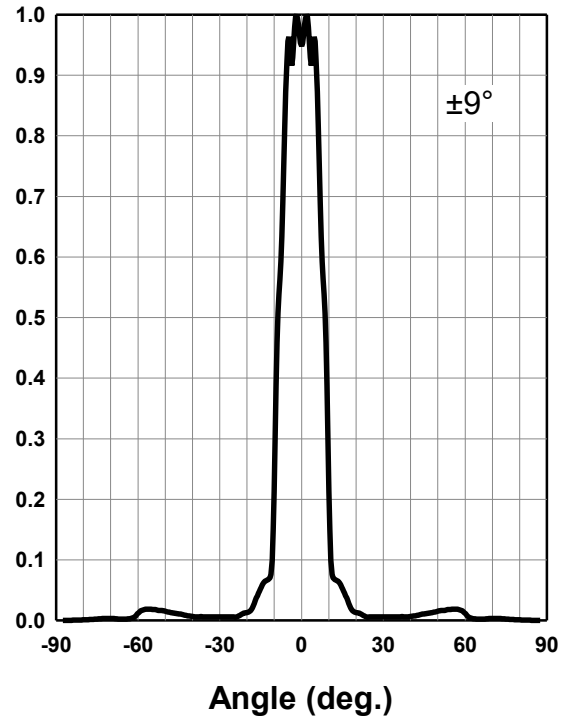
### Peak Wavelength - Ambient Temperature



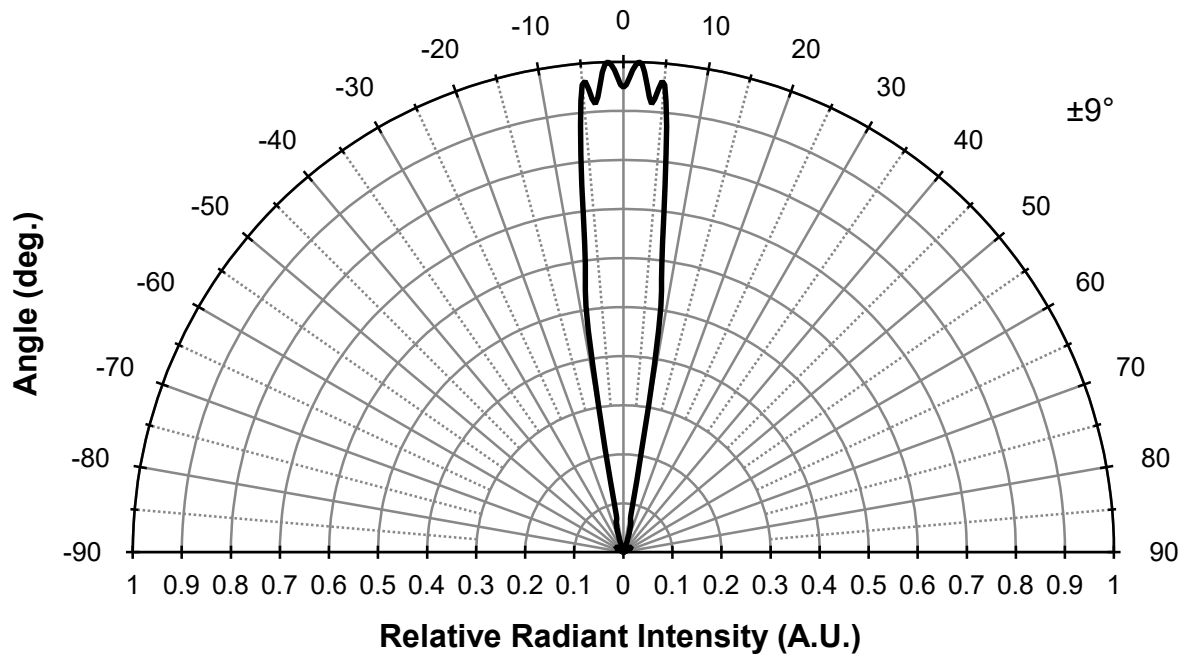
### Relative Spectral Emission



### Radiation Characteristics



### Radiation Characteristics



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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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**The product is manufactured by USHIO Inc. and the spec information is also from USHIO Inc.**

