

# L660N-04

## High Bright Red LED Lamp

L660N-04 is an AlGaInP LED mounted on a lead frame with a clear epoxy lens.

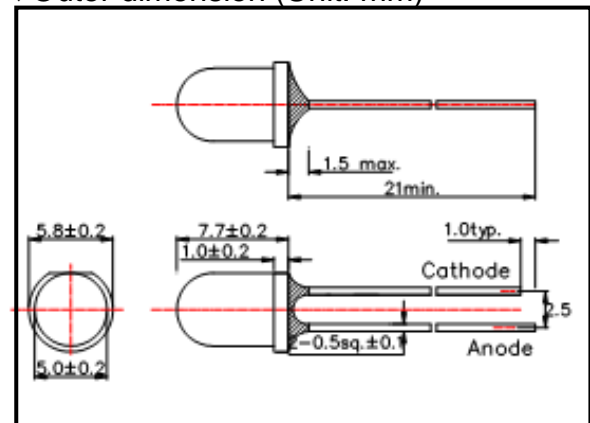
This is designed for the highest Po and damp proof.

On forward bias it emits a band of visible light, which peaks 660nm.

### ◆ Specifications

1) Product Name	Red LED Lamp
2) Type No.	L660N-04
3) Chip	
(1) Chip Material	AlGaInP
(2) Peak Wavelength	660nm typ.
4) Package	
(1) Type	Φ5mm clear molding
(2) Resin Material	Epoxy Resin
(3) Lead Frame	Soldered

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	120	mW
Forward Current	IF	50	mA
Pulse Forward Current	IFP	200	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	200	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

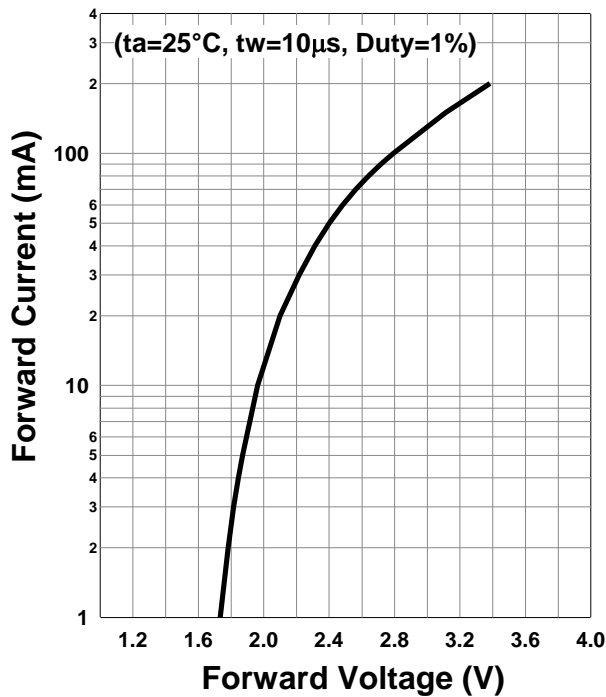
## ◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		2.1	2.3	V
	VFP	IFP=200mA		3.4		
Radiated Power	PO	IF=20mA	8	15		mW
		IFP=200mA		155		
Radiant Intensity	IE	IF=20mA		20		mW/sr
		IFP=200mA		210		
Peak Wavelength	$\lambda_P$	IF=20mA	650	660	670	nm
Half Width	$\Delta\lambda$	IF=20mA		16		nm
Viewing Half Angle	$\theta_{1/2}$	IF=20mA		±14		deg.
Rise Time	tr	IF=20mA		35		ns
Fall Time	tf	IF=20mA		30		ns

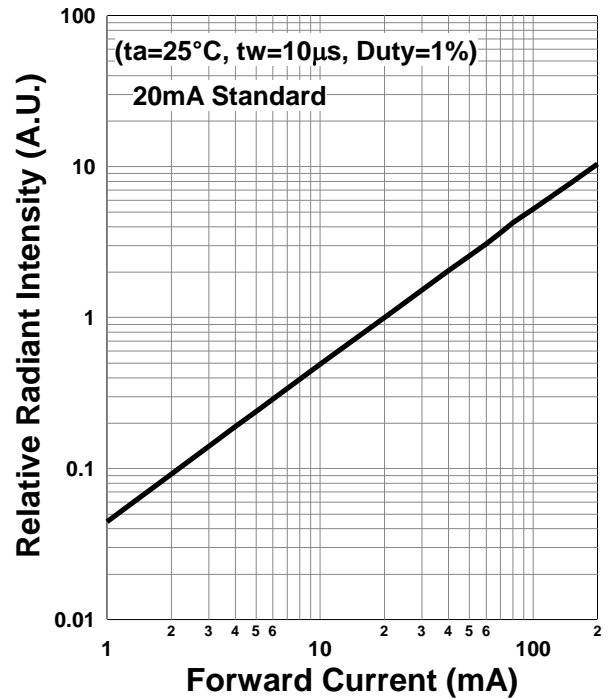
‡Radiated Power is measured by S3584-08.

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

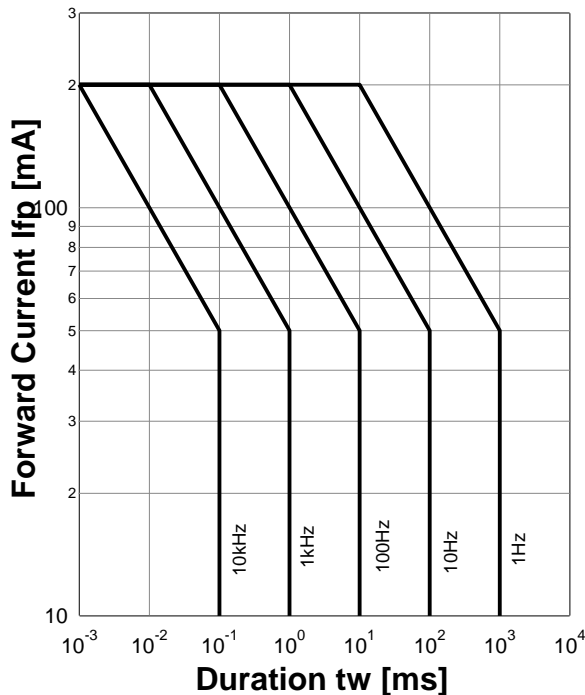
Forward Current - Forward Voltage



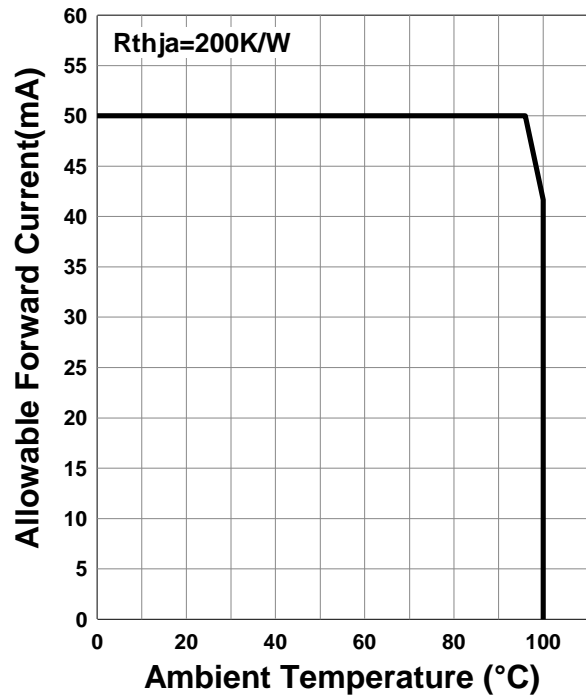
Relative Radiant Intensity - Forward Current



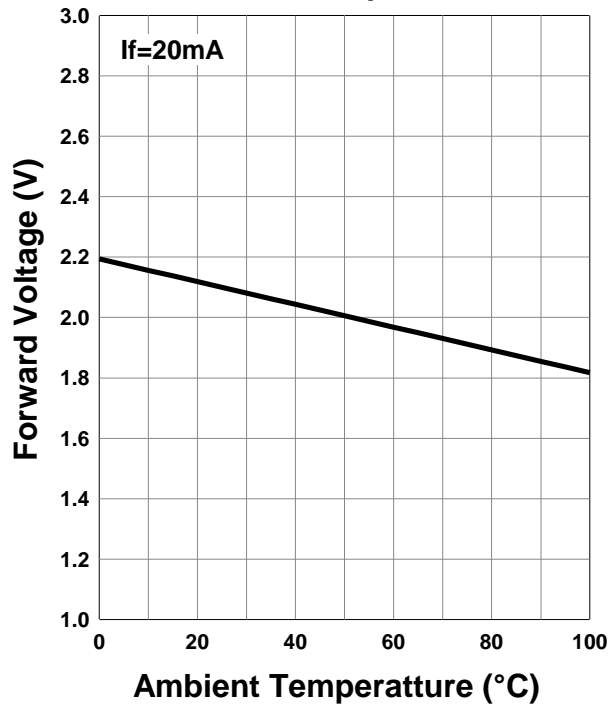
Forward Current - Pulse Duration



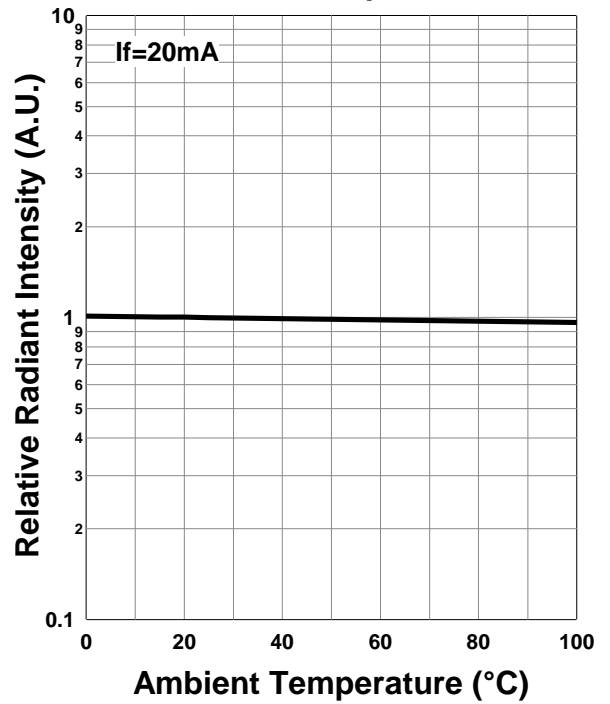
Allowable Forward Current - Ambient Temperature



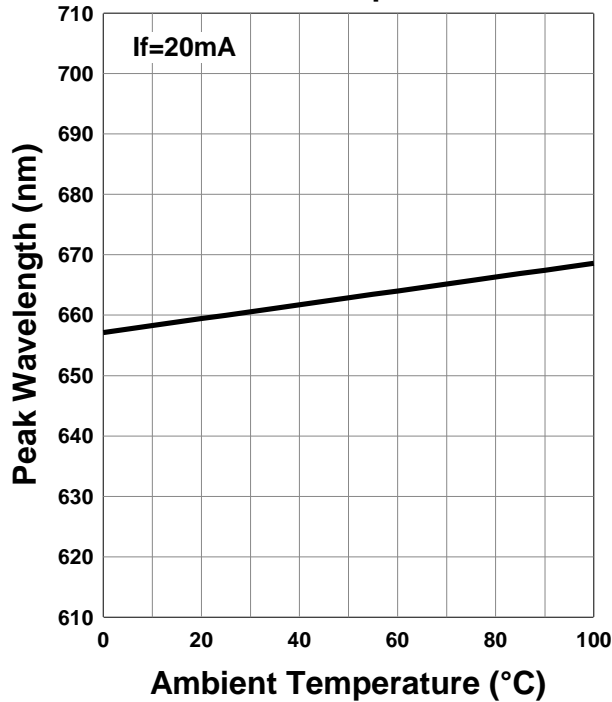
**Forward Voltage - Ambient Temperature**



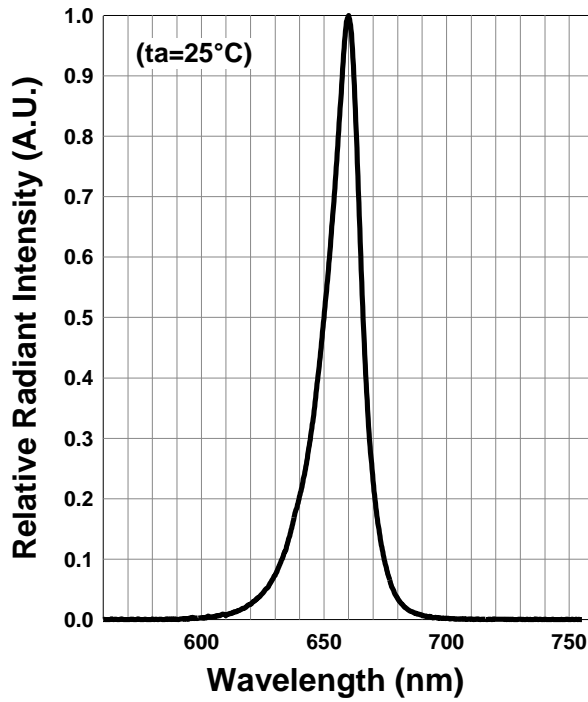
**Relative Radiant Intensity - Ambient Temperature**



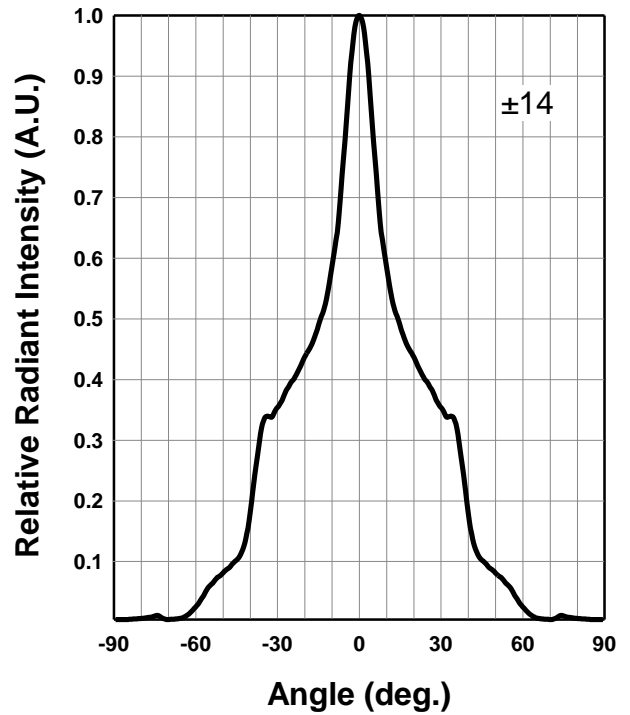
**Peak Wavelength - Ambient Temperature**



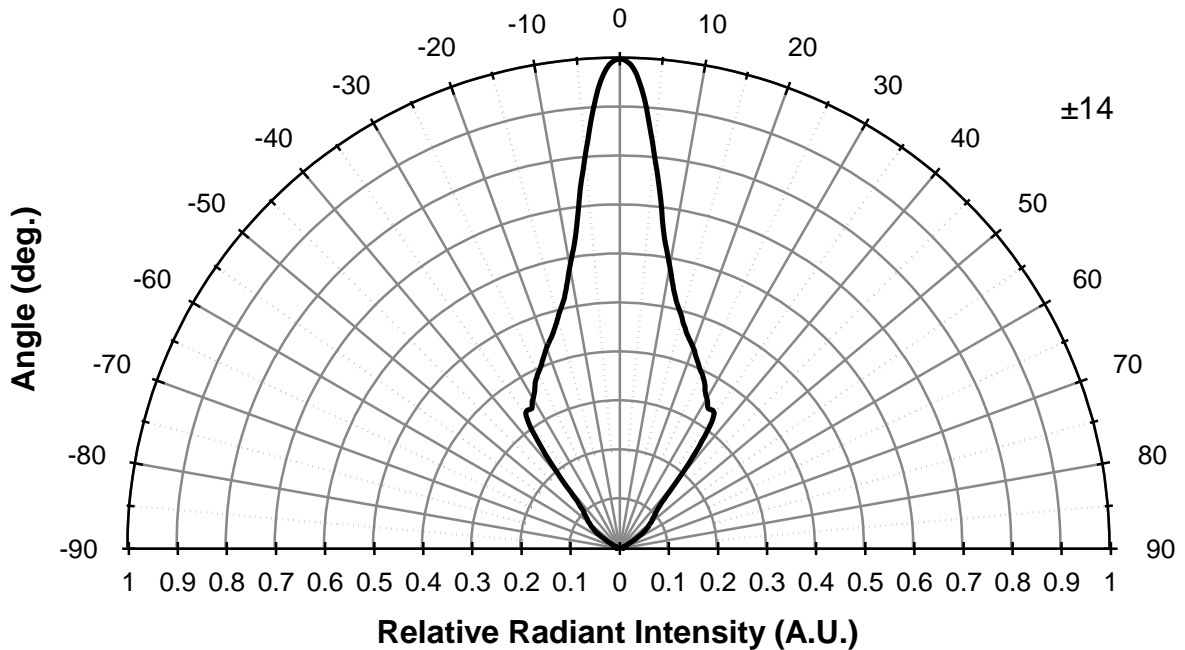
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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