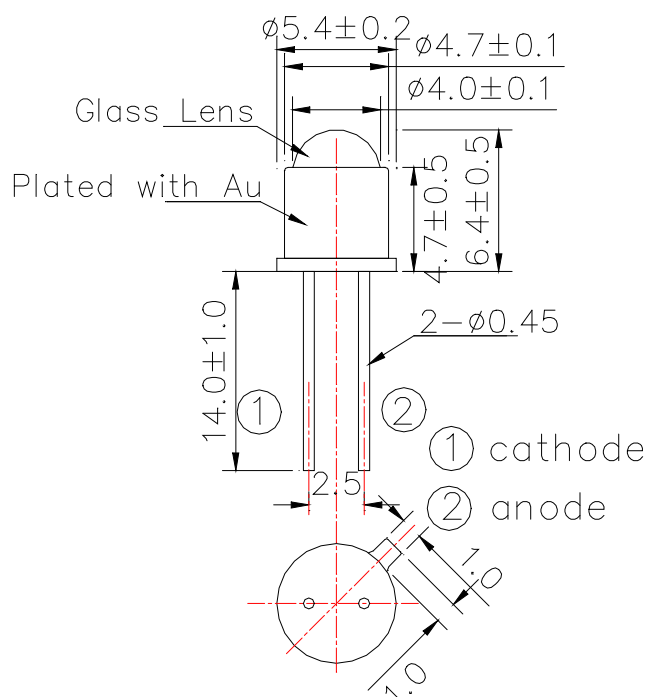


Data Sheet

PRELIMINARY

L1200S-35M32 rev. B

Infrared LED Lamp

Outline and Internal Circuit

(Unit : mm)

Features

- Non-hermetic package
- Chip Material : InGaAsP
- Chip Dimension : 300um *300um
- Number of Chips : 1pce
- Peak Wavelength : 1200nm typ.
- Stem: TO-18 type
- Lens : Glass Ball Lens
- CAP : Gold plated

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	130	mW
Forward Current	IF	100	mA
Pulse Forward Current	I _{FP}	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	R _{thja}	260	K/W
Junction Temperature	T _j	120	°C
Operating Temperature	T _{opr}	-40 ~ +100	°C
Storage Temperature	T _{stg}	-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)

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

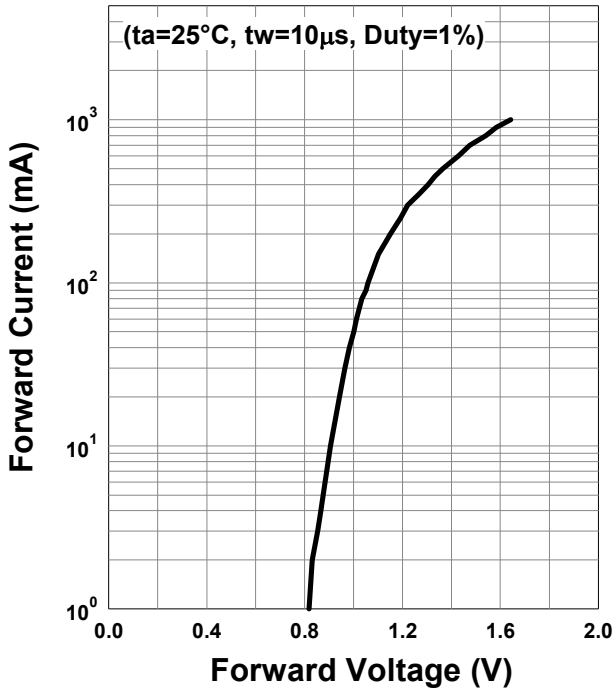
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	V _F		1.0	1.3	V	IF=50mA*
	V _{FP}		1.6			I _{FP} =1000mA**
Reverse Current	I _R			10	uA	VR=5V*
Total Radiated Power	P _O		8.5		mW	IF=50mA*
			64			I _{FP} =1000mA**
Radiant Intensity	I _E		52		mW/sr	IF=50mA**
			390			I _{FP} =1000mA**
Peak Wavelength	λ _p	1150		1250	nm	IF=50mA*
Half Width	Δλ		90		nm	IF=50mA**
Viewing Half Angle	θ _{1/2}		±9		deg.	IF=50mA**
Rise Time	t _r		30		ns	IF=50mA**
Fall Time	t _f		70		ns	IF=50mA**

‡ Radiated Power is measured by G8370-85.

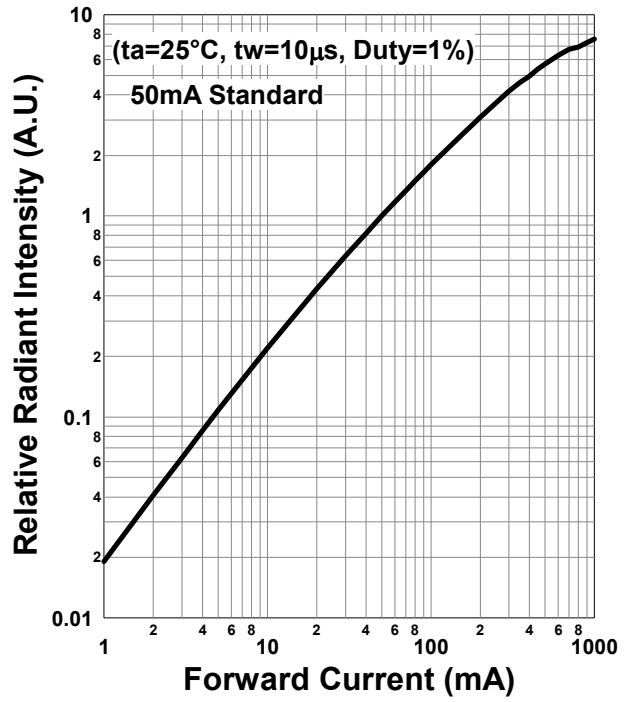
‡ Radiant Intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2742.

Typical Characteristic Curves

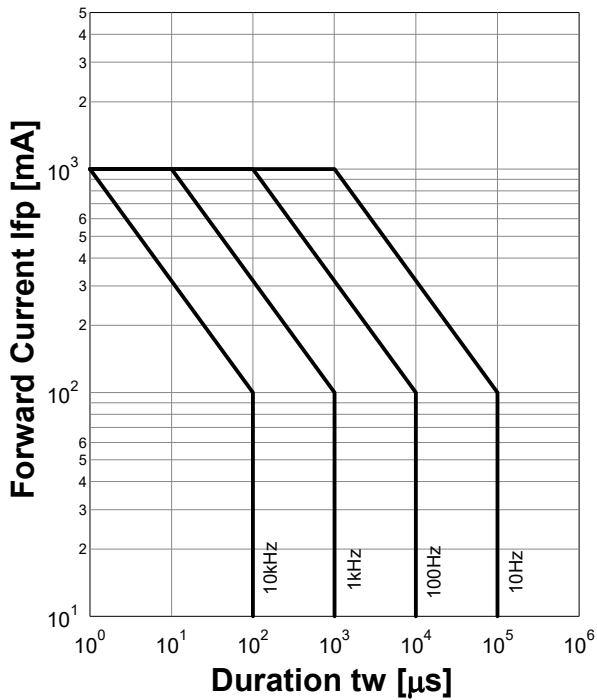
Forward Current - Forward Voltage



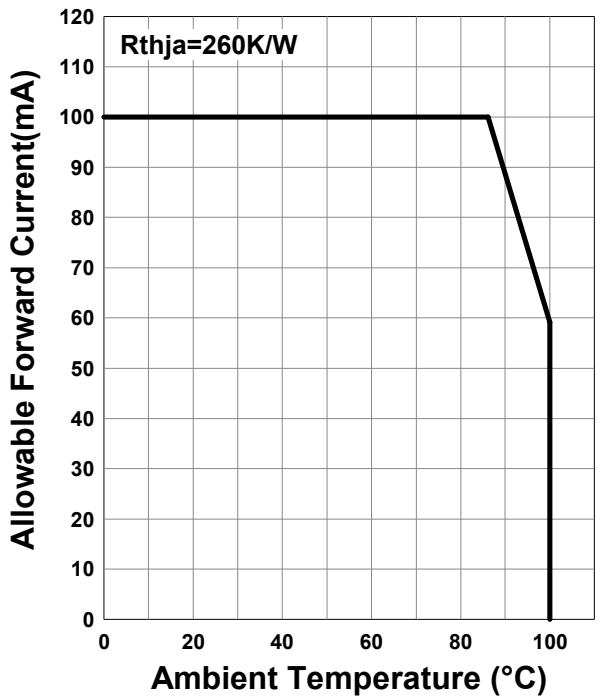
Relative Radiant Intensity - Forward Current



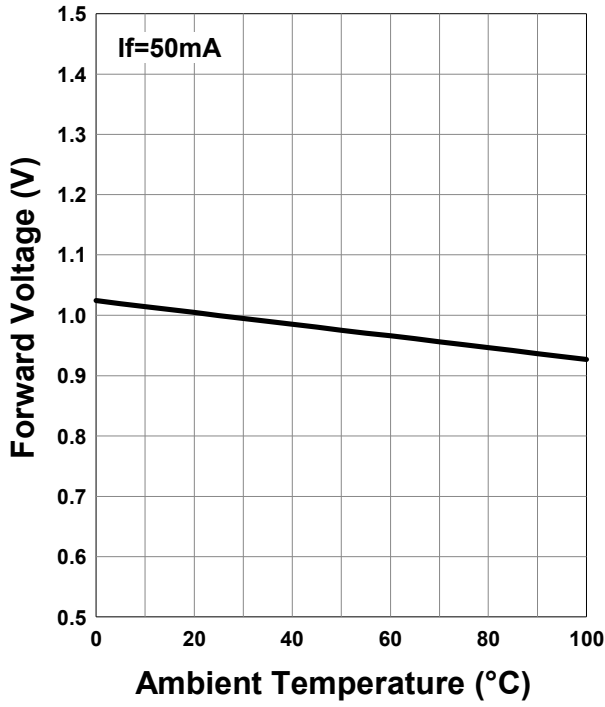
Forward Current - Pulse Duration



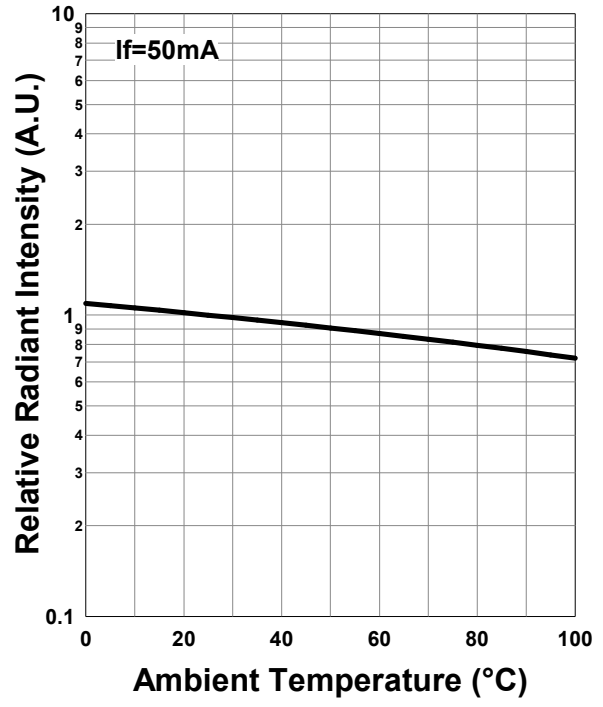
Allowable Forward Current - Ambient Temperature



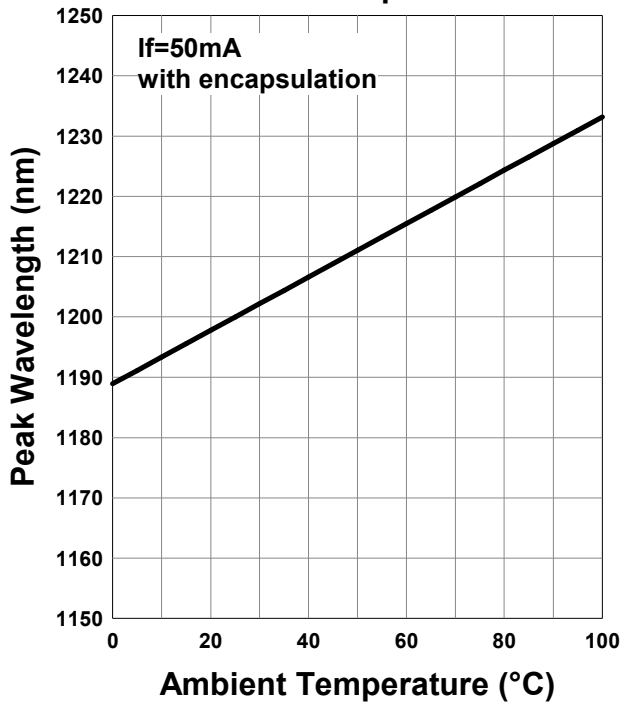
Forward Voltage - Ambient Temperature



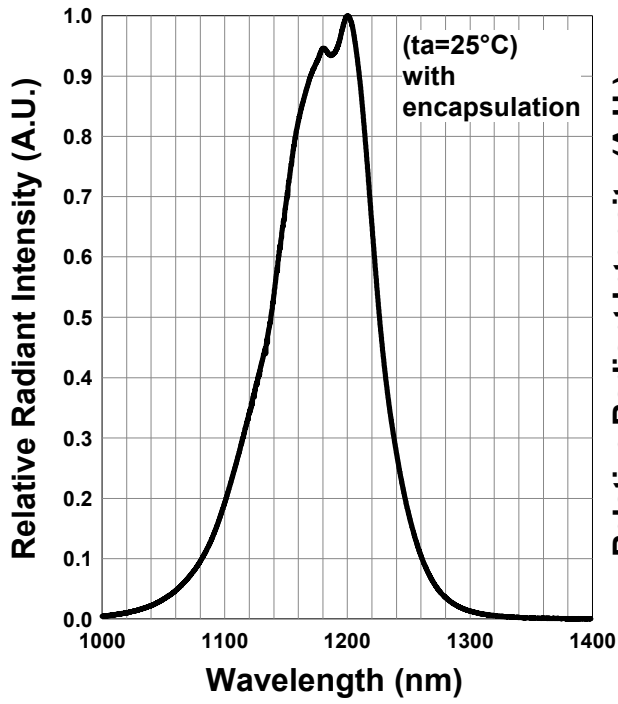
Relative Radiant Intensity - Ambient Temperature



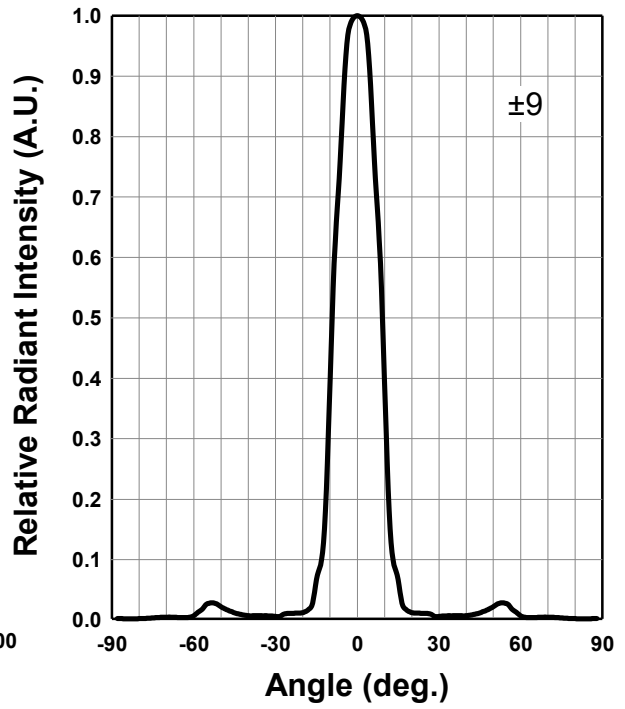
Peak Wavelength - Ambient Temperature



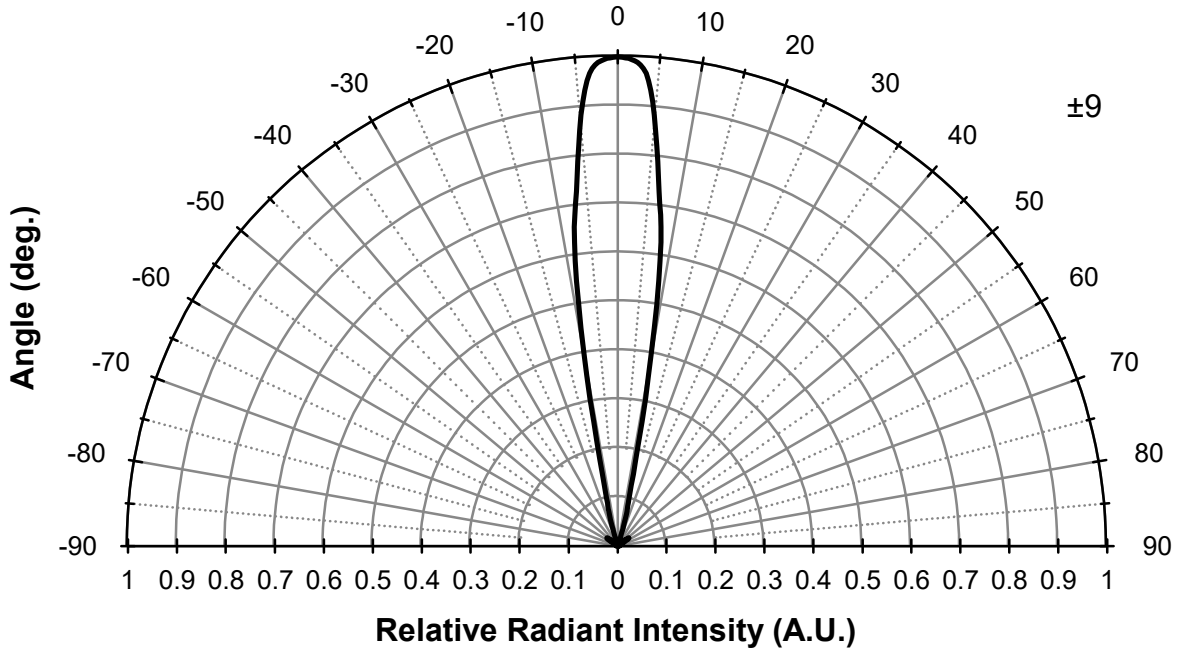
Relative Spectral Emission



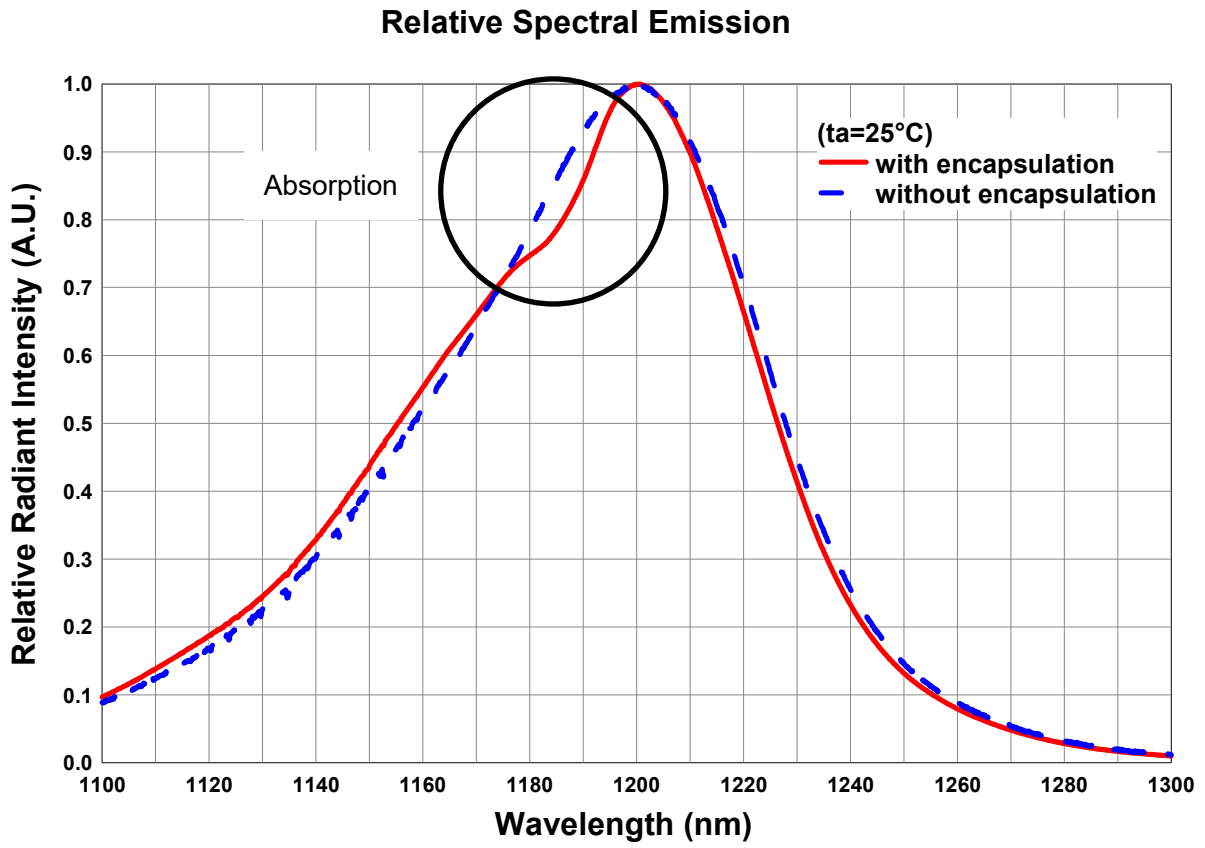
Radiation Characteristics



Radiation Characteristics



*The absorption of lens resin changes spectral emission.



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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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