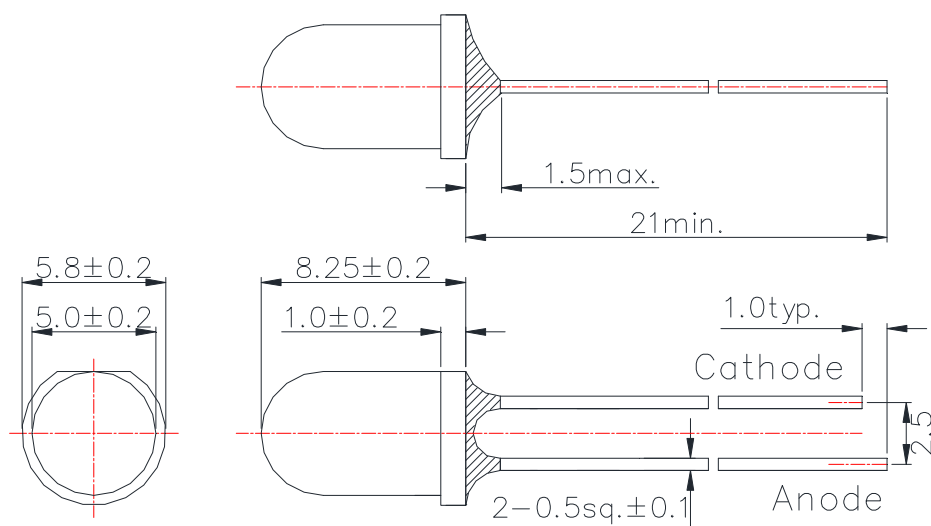


L1550D-03

Infrared LED Lamp

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaAsP
- Chip Dimension : $350\mu\text{m} * 350\mu\text{m}$
- Number of Chips : 1pce
- Peak Wavelength : 1550nm typ.
- Package Type : $\phi 5\text{mm}$ clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	130	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjs	250	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +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)

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

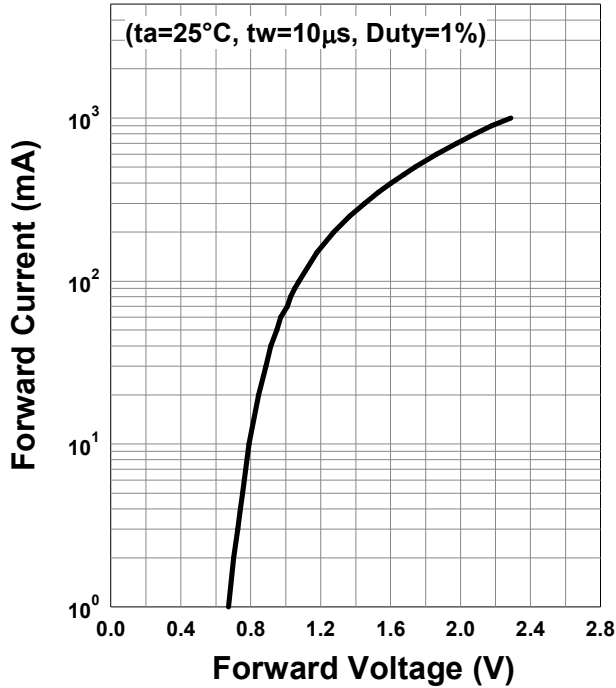
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		0.95	1.3	V	IF=50mA*
	VFP		2.3			IFP=1A**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	2.8	4.3		mW	IF=50mA*
			22			IFP=1A**
Radiant Intensity	IE		42		mW/sr	IF=50mA**
			220			IFP=1A**
Peak Wavelength	λp	1520		1580	nm	IF=50mA*
Half Width	Δλ		100		nm	IF=50mA**
Viewing Half Angle	θ1/2		±14		deg.	IF=50mA**
Rise Time	tr		60		ns	IF=50mA**
Fall Time	tf		30		ns	IF=50mA**

‡ Radiated Power is measured by G8370-85.

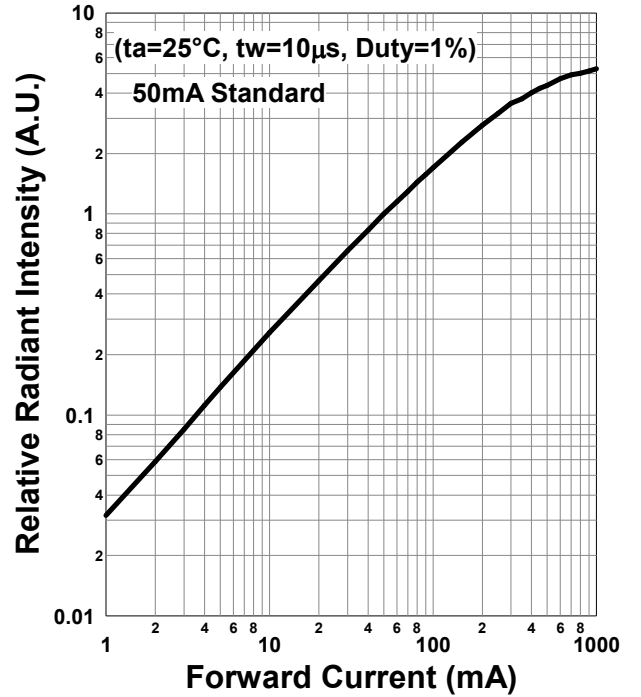
‡ Radiant Intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2742.

Typical Characteristic Curves

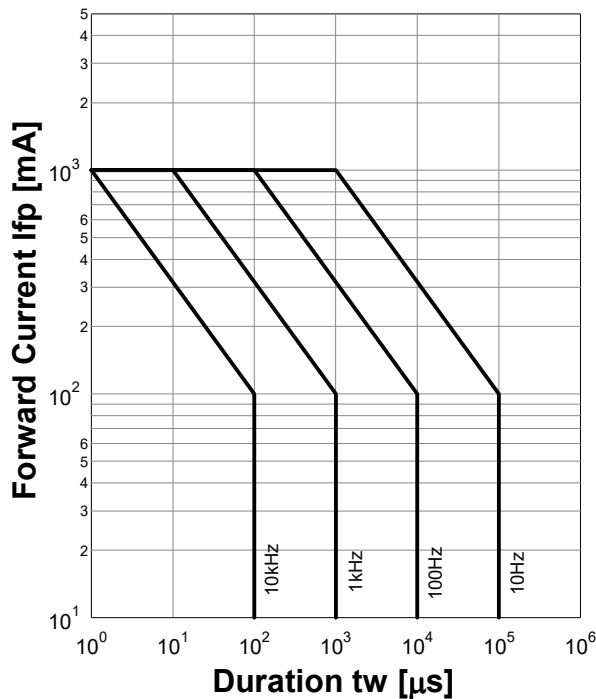
Forward Current - Forward Voltage



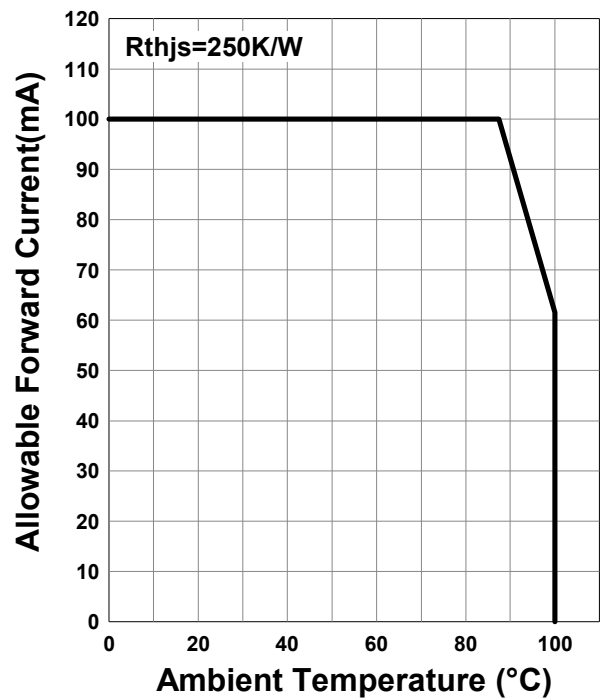
Relative Radiant Intensity - Forward Current



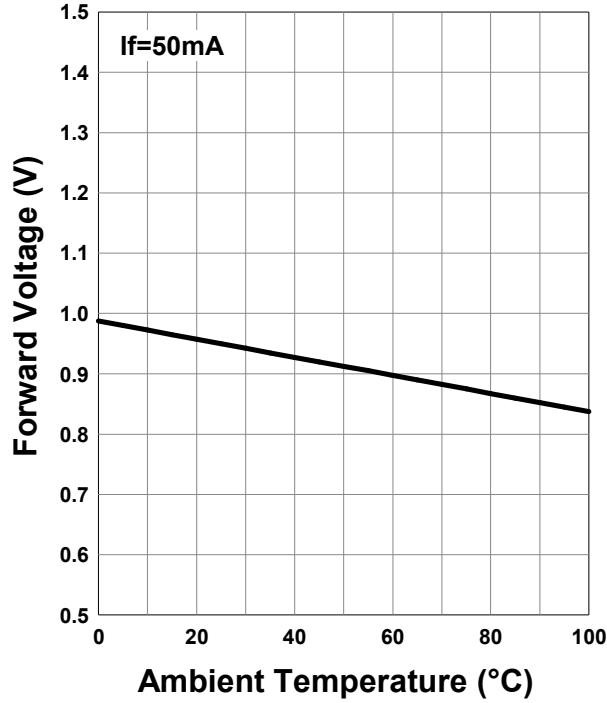
Forward Current - Pulse Duration



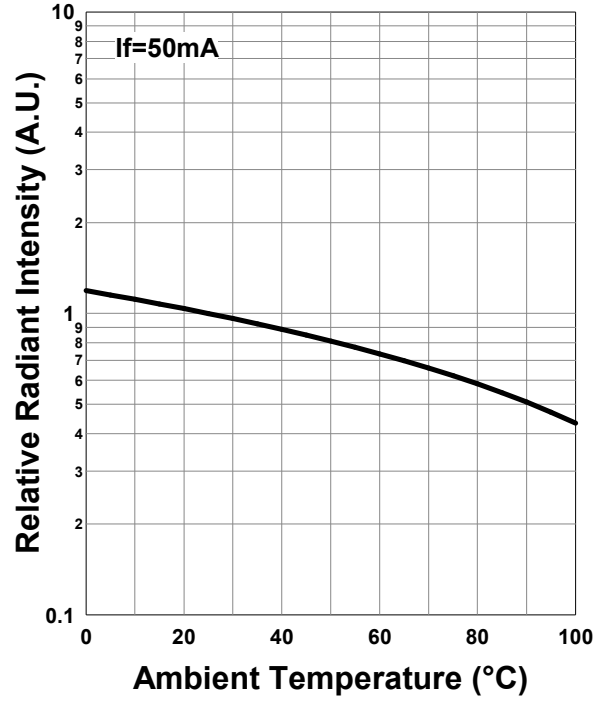
Allowable Forward Current - Ambient Temperature



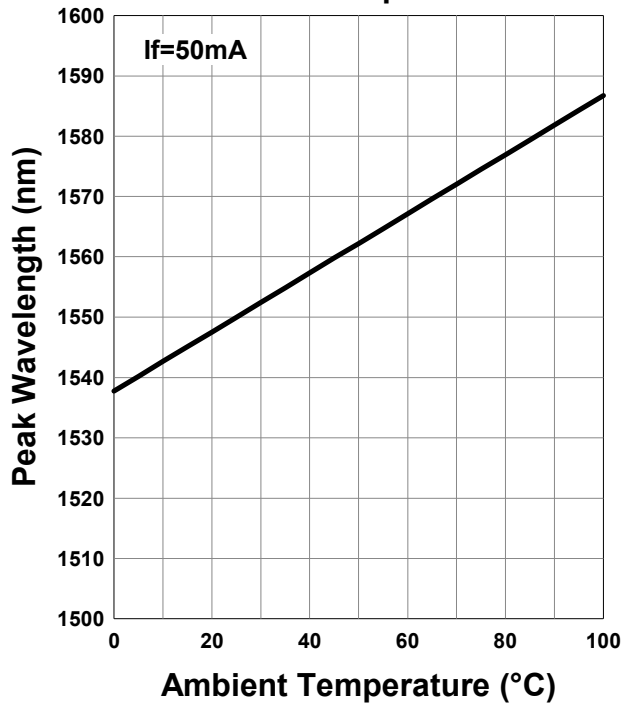
Forward Voltage - Ambient Temperature

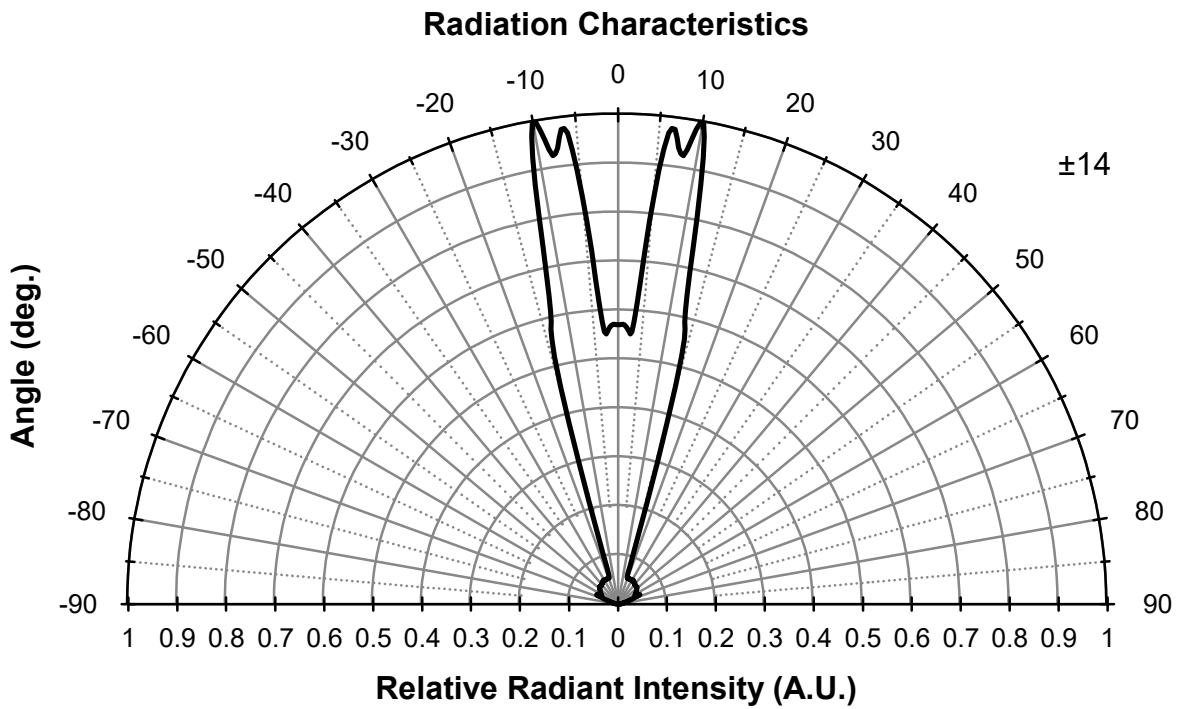
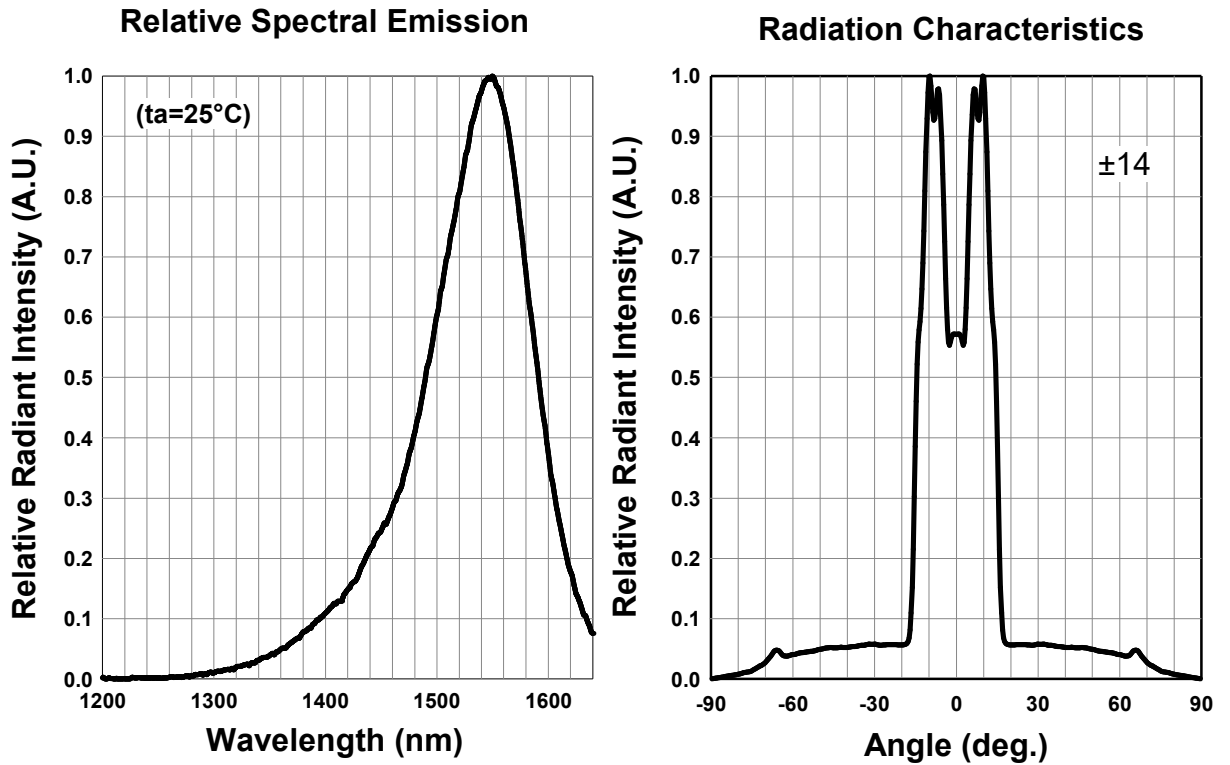


Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature





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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