

L1550-03

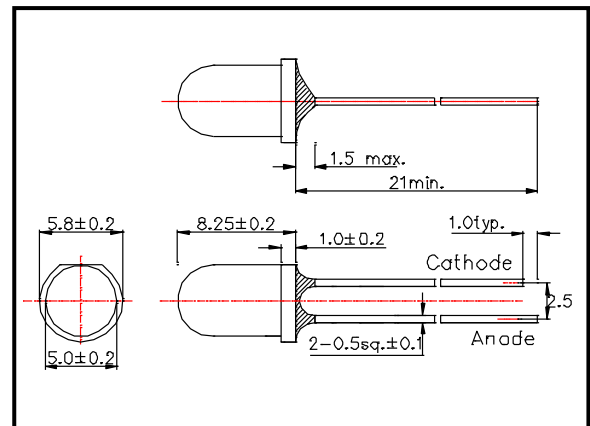
Infrared LED Lamp

L1550-03 is an InGaAsP LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a spectral band of radiation, which peaks at 1550nm.

◆ Specifications

- | | |
|---------------------|----------------------|
| 1) Product Name | Infrared LED Lamp |
| 2) Type No. | L1550-03 |
| 3) Chip | |
| (1) Chip Material | InGaAsP |
| (2) Peak Wavelength | 1550nm typ. |
| 4) Package | |
| (1) Type | Φ5mm clear molding |
| (2) Resin Material | Epoxy Resin |
| (3) Lead Frame | Soldered (Lead Free) |

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	150	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	350	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

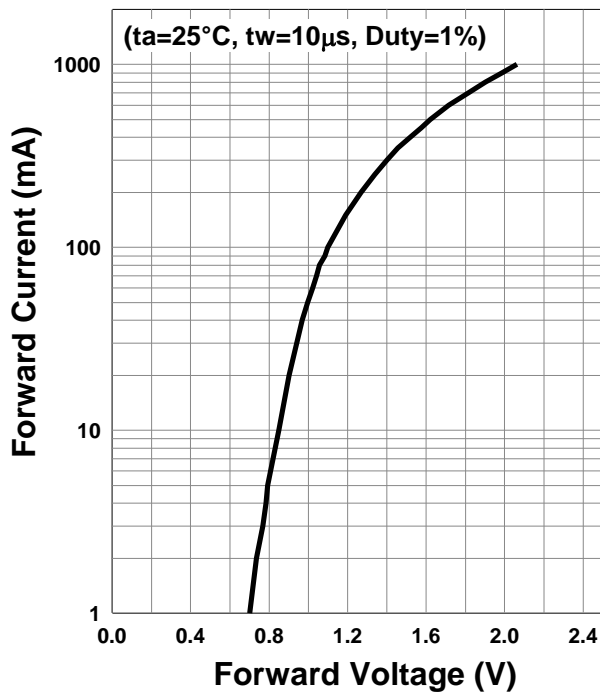
◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.0	1.5	V
	VFP	IFP=1A		2.0		
Radiated Power	PO	IF=50mA	1.3	2.5		mW
		IFP=1A		13		
Radiant Intensity	IE	IF=50mA		32		mW/sr
		IFP=1A		170		
Peak Wavelength	λ_P	IF=50mA	1500	1550	1600	nm
Half Width	$\Delta\lambda$	IF=50mA		100		nm
Viewing Half Angle	$\theta_{1/2}$	IF=50mA		±14		deg.

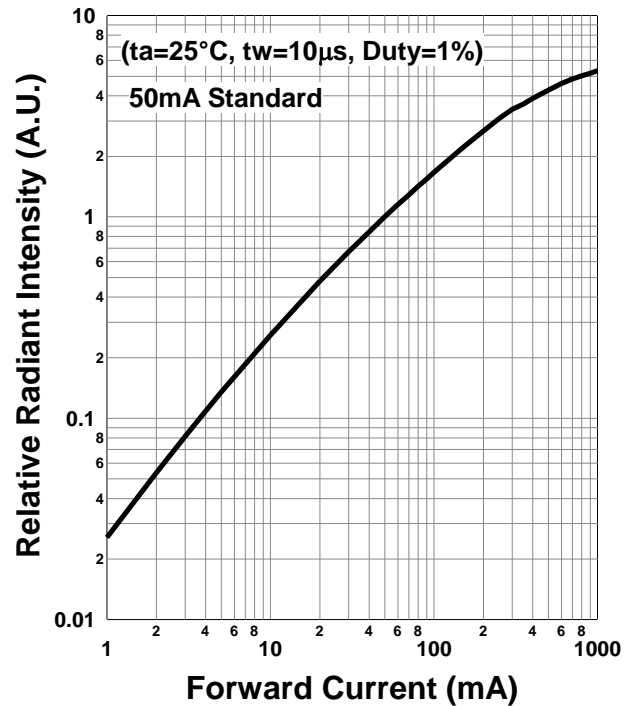
‡Radiated Power is measured by G8370-85.

‡Radiant Intensity is measured by ANDO Optical Multi Meter AQ2140 & AQ2743.

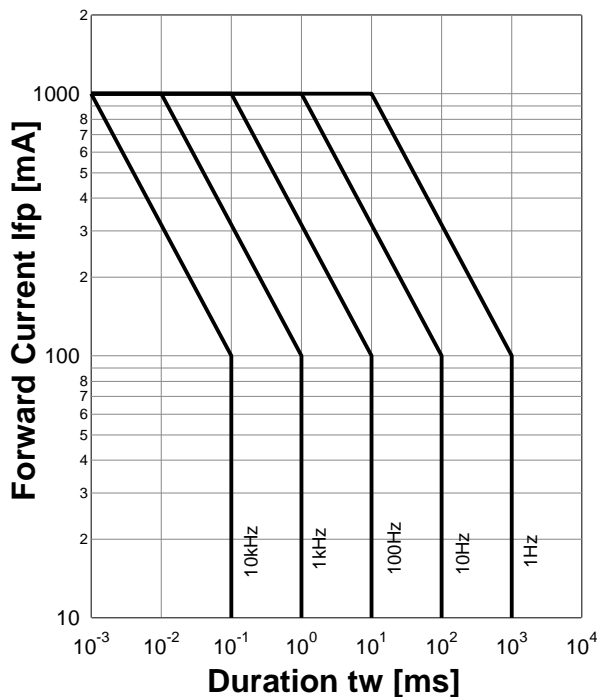
Forward Current - Forward Voltage



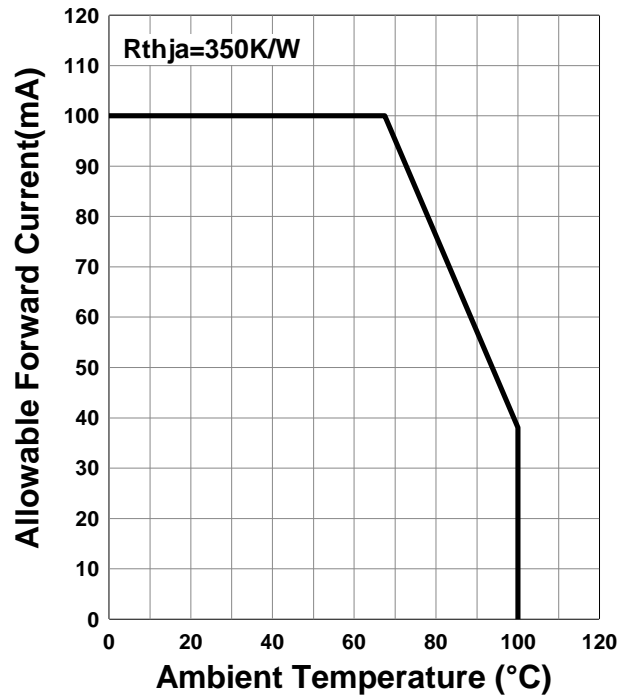
Relative Radiant Intensity - Forward Current



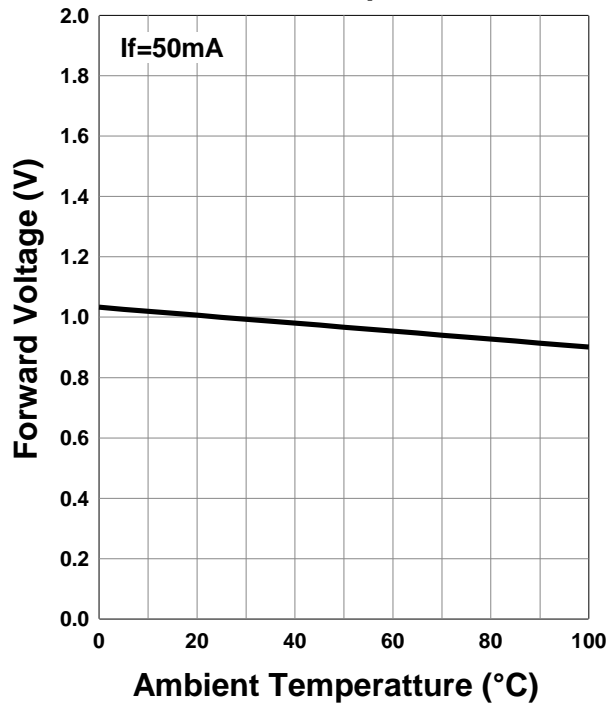
Forward Current - Pulse Duration



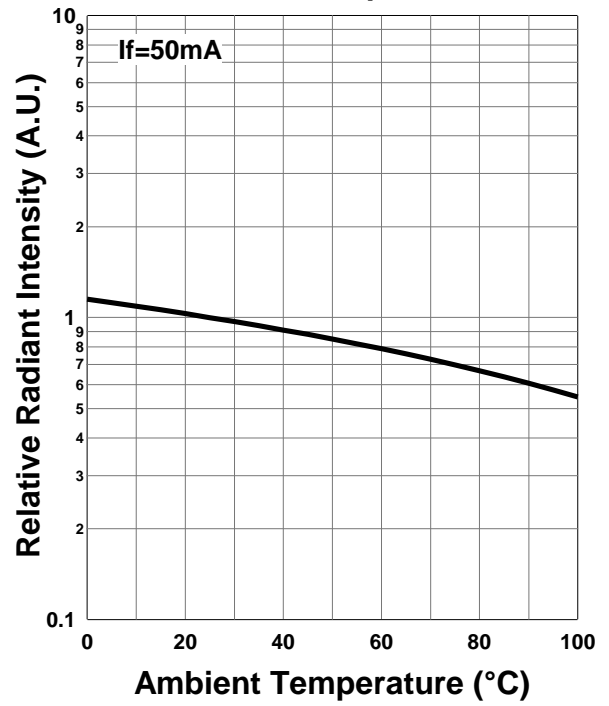
Allowable Forward Current - Ambient Temperature



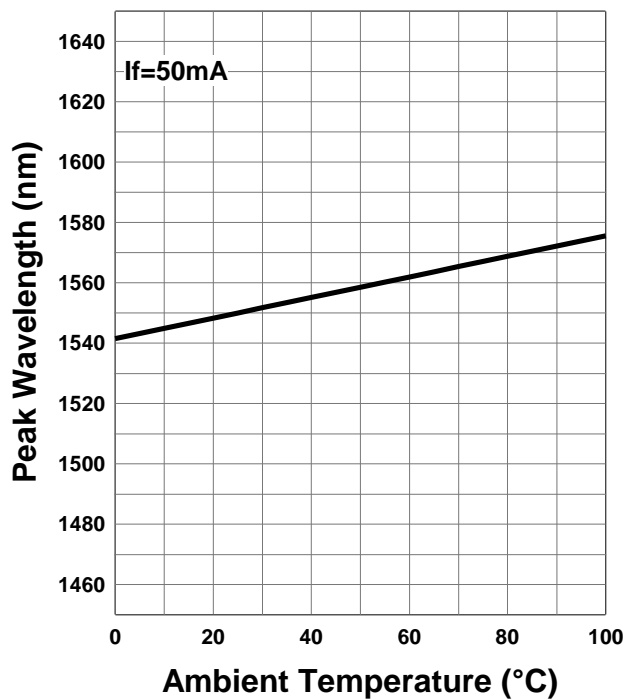
Forward Voltage - Ambient Temperature



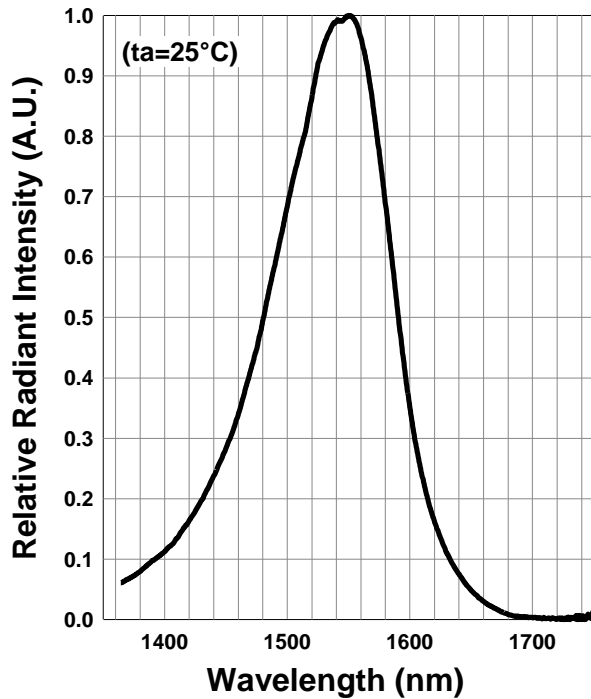
Relative Radiant Intensity - Ambient Temperature



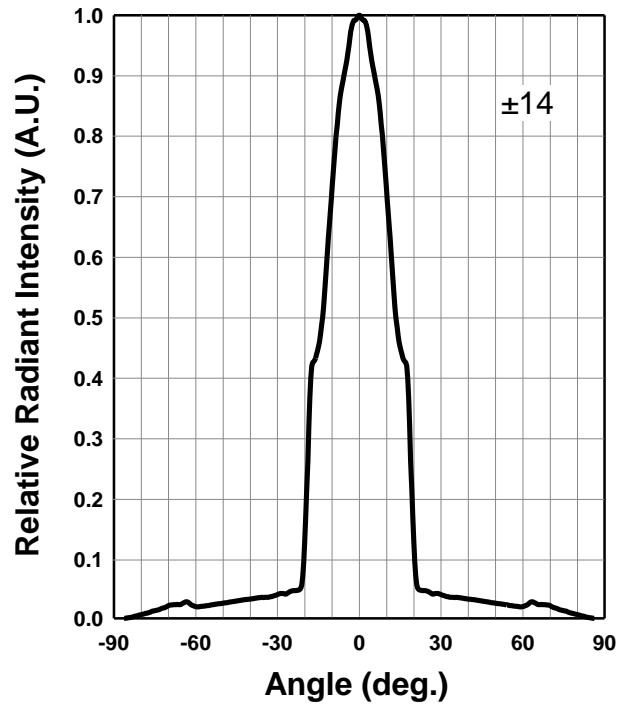
Peak Wavelength - Ambient Temperature



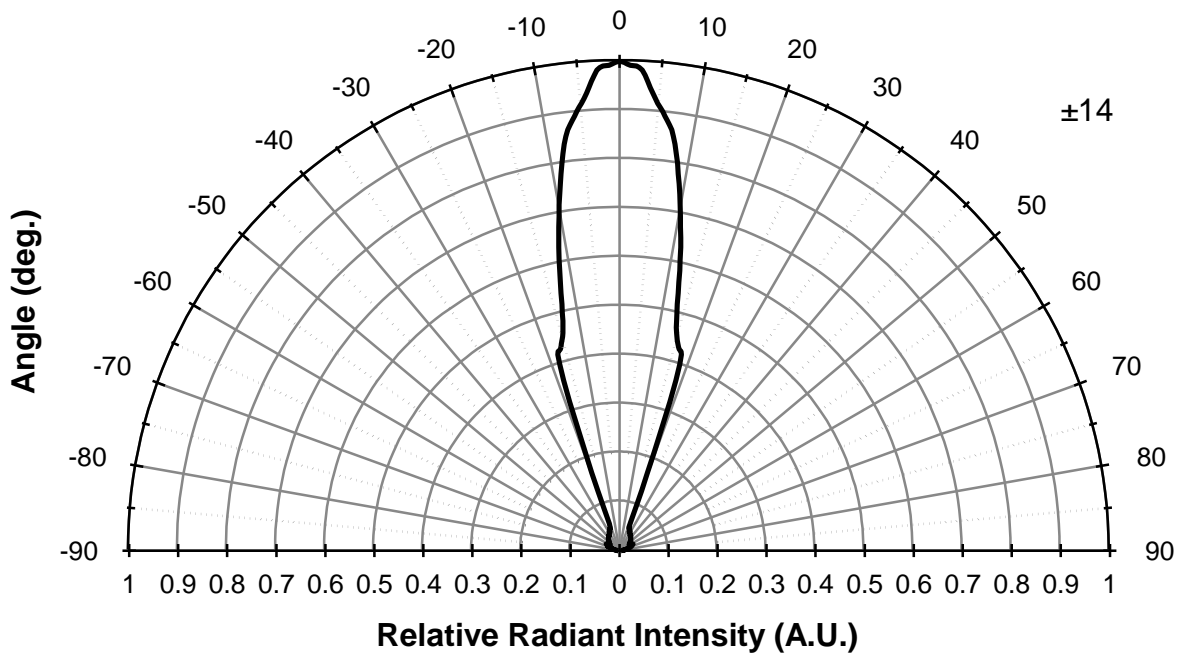
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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