

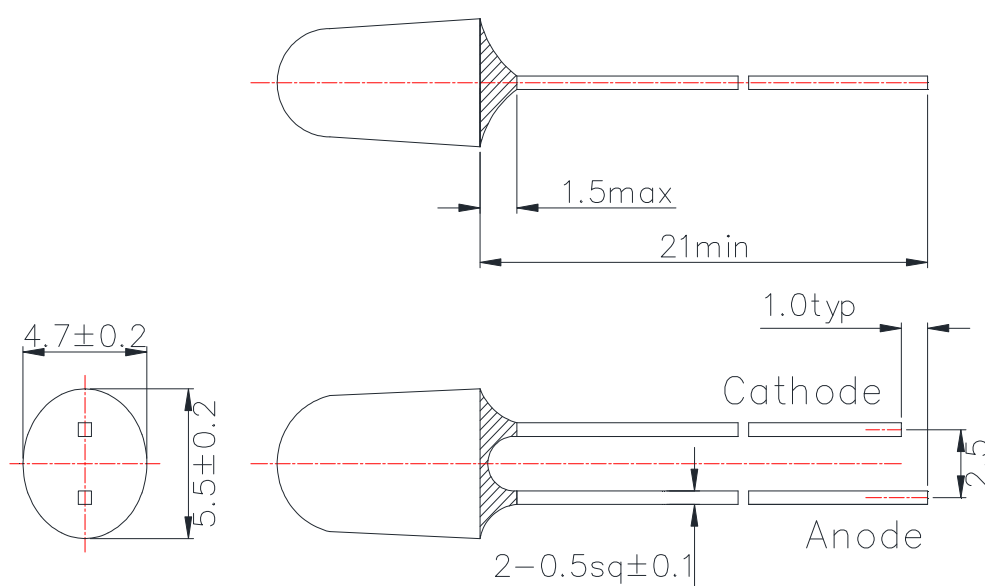
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PRELIMINARY

L1100D-09

Infrared LED Lamp

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaAsP
- Chip Dimension : 350um * 350um
- Number of Chips : 1pce
- Peak Wavelength : 1100nm typ.
- Package Type : $\phi 5$ mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

Application

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	150	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)

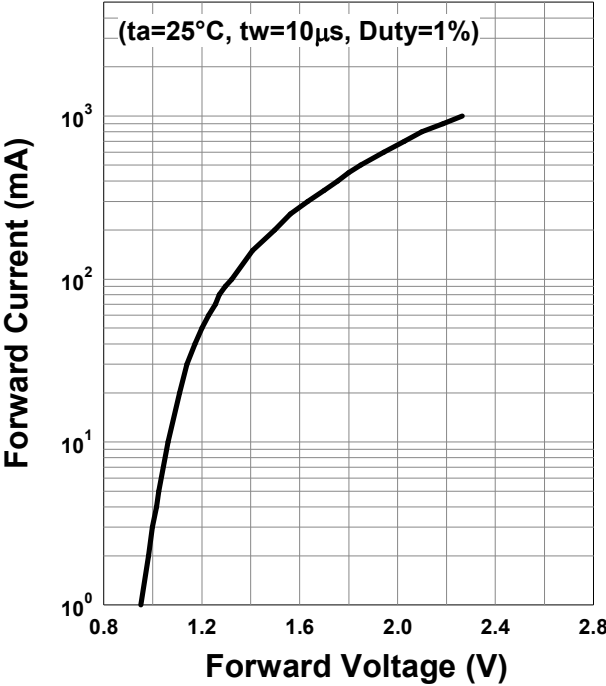
Parameter		Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage		VF		1.2	1.5	V	IF=50mA*
		VFP		2.3			IFP=1A**
Reverse Current		IR			10	uA	VR=5V*
Total Radiated Power		PO	8.6	13		mW	IF=50mA*
				66			IFP=1A**
Radiant Intensity		IE		27		mW/sr	IF=50mA**
				130			IFP=1A**
Peak Wavelength		λp	1070		1130	nm	IF=50mA*
Half Width		Δλ		55		nm	IF=50mA**
Viewing Half Angle	Long	θ1/2		±28		deg.	IF=50mA**
	Short			±14			
Rise Time		tr		60		ns	IF=50mA**
Fall Time		tf		30		ns	IF=50mA**

‡ Radiated Power is measured by G8370-85.

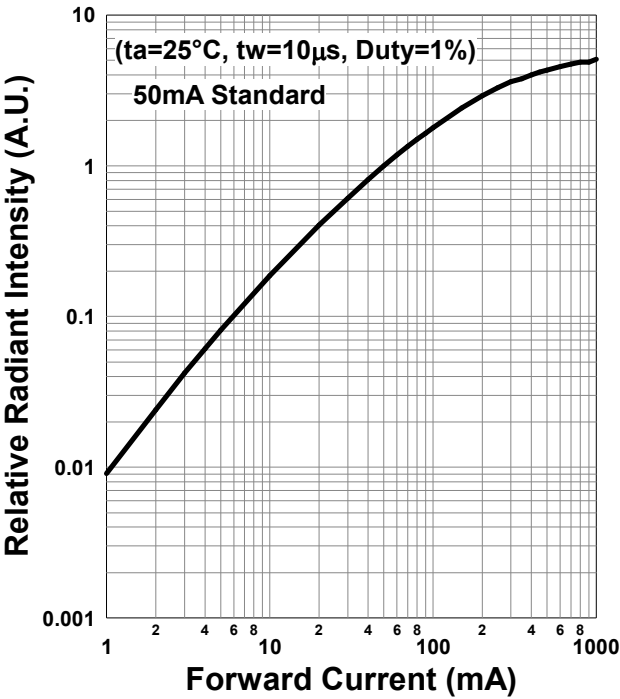
‡ Radiant Intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2742.

Typical Characteristic Curves

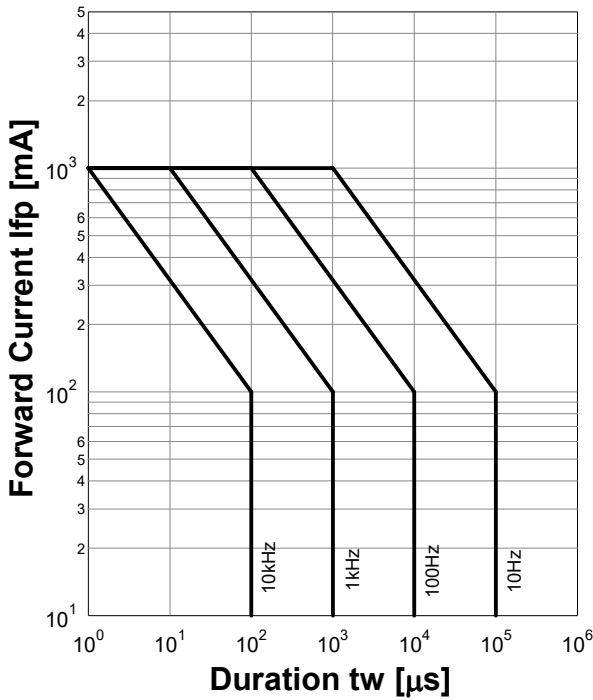
Forward Current - Forward Voltage



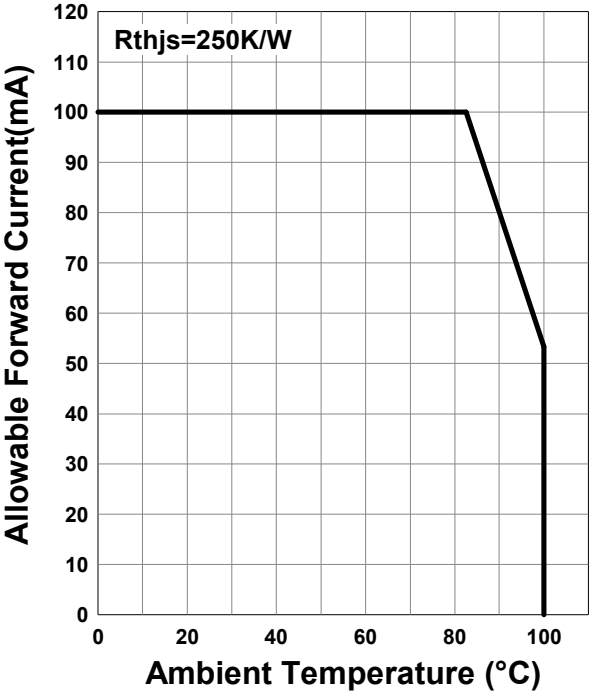
Relative Radiant Intensity - Forward Current

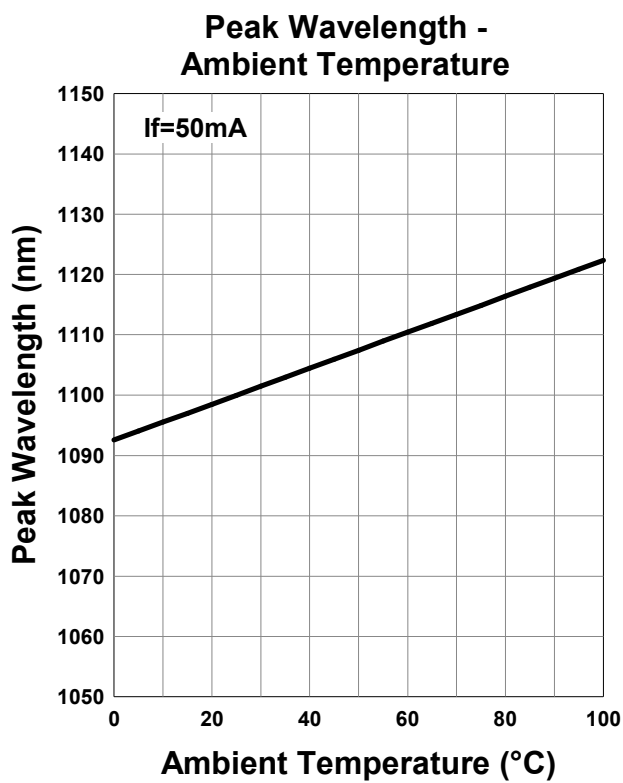
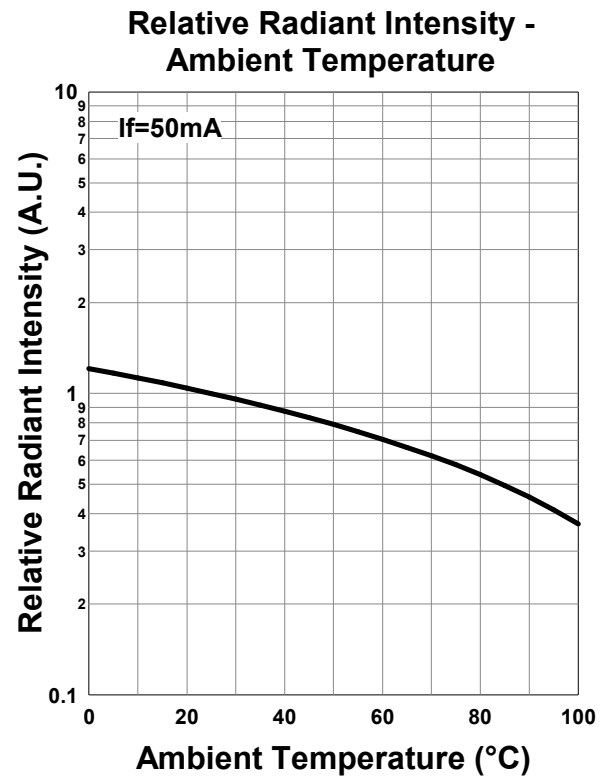
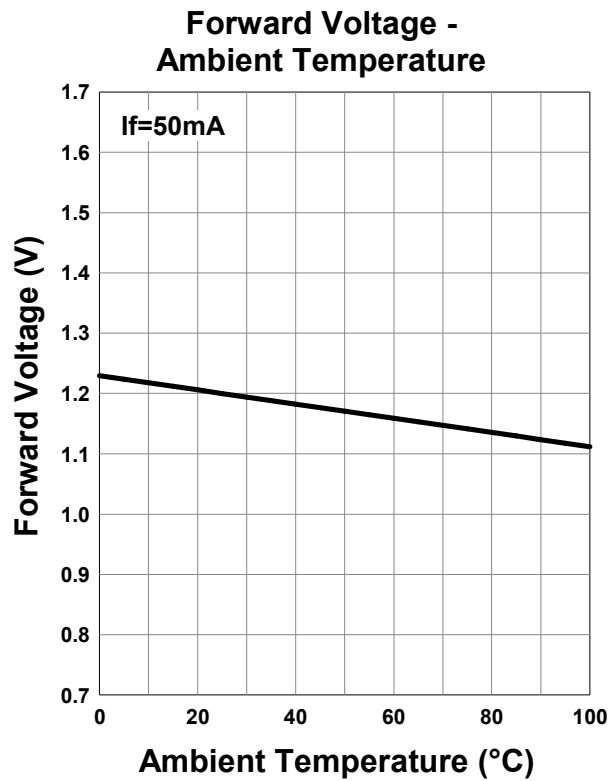


Forward Current - Pulse Duration

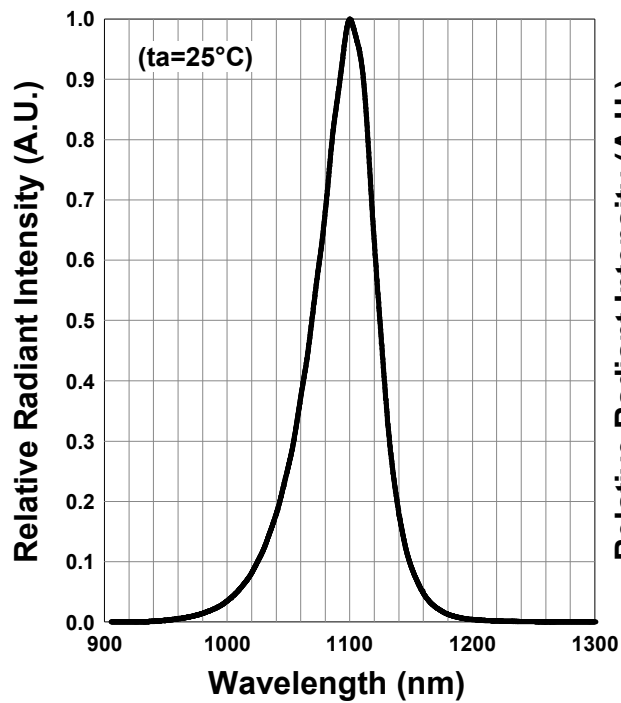


Allowable Forward Current - Ambient Temperature

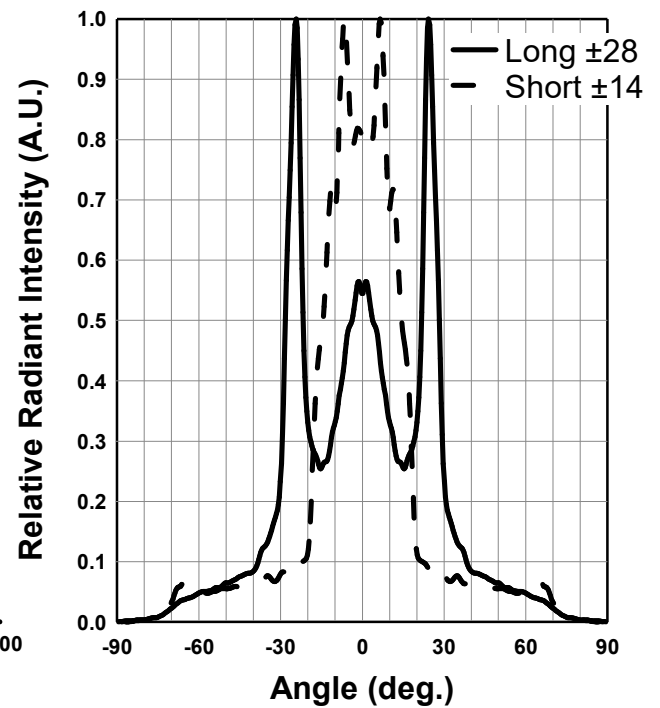




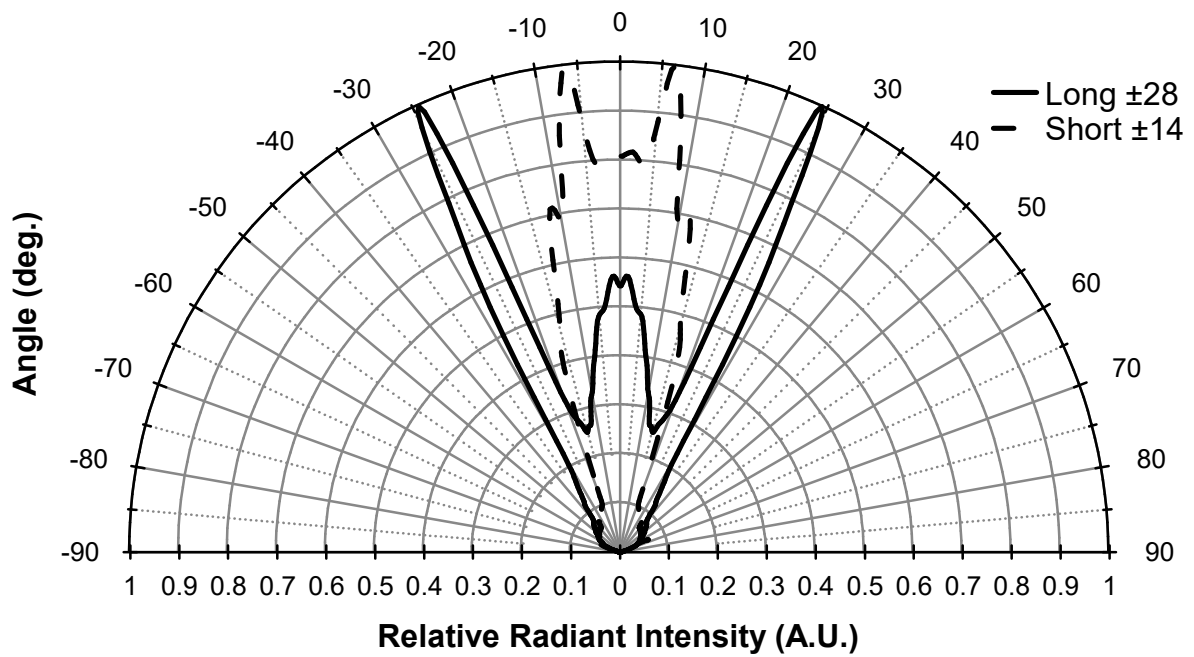
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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