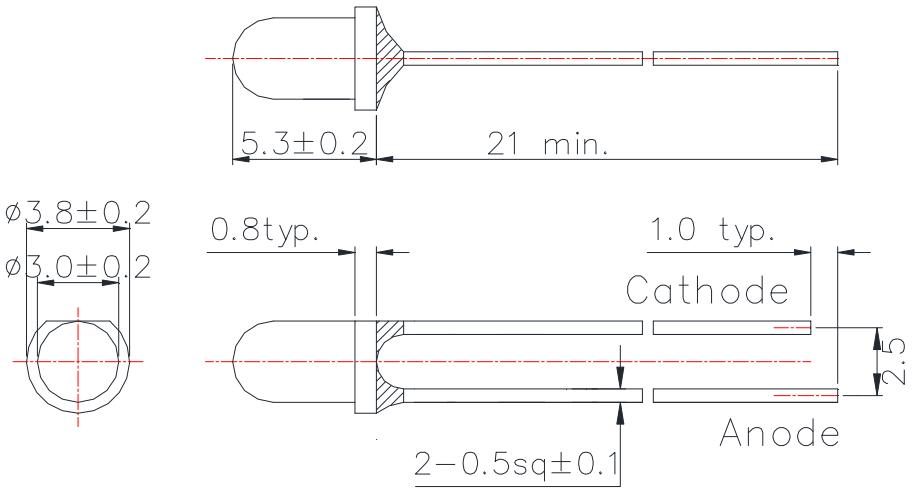
Data Sheet

L980D-33

Infrared LED Lamp

Outline and Internal C ircuit



(Unit : mm)

Features

- Chip Material : AlGaAs
- Chip Dimension : 350um * 350um
- Number of Chips : 1pc
- Peak Wavelength : 980nm typ.
- Package Type : ϕ3mm clear molding
- Lead Frame : Soldered (Lead Free)
- Lens : Epoxy Resin

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Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	180	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	1000	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	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)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		1.5	1.8	V	IF=50mA
	VFP		3.1			IFP=1A
Total Radiated Power	PO		30		mW	IF=50mA
			430			IFP=1A
Radiant Intensity	IE		72		mW/sr	IF=50mA
			1000			IFP=1A
Peak Wavelength	λp	970		990	nm	IF=50mA
Half Width	Δλ		55		nm	IF=50mA
Viewing Half Angle	θ1/2		±17		deg.	IF=50mA
Rise Time	tr		15		ns	IF=50mA
Fall Time	tf		15		ns	IF=50mA

‡ Radiated Power is measured by S3584-08.

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

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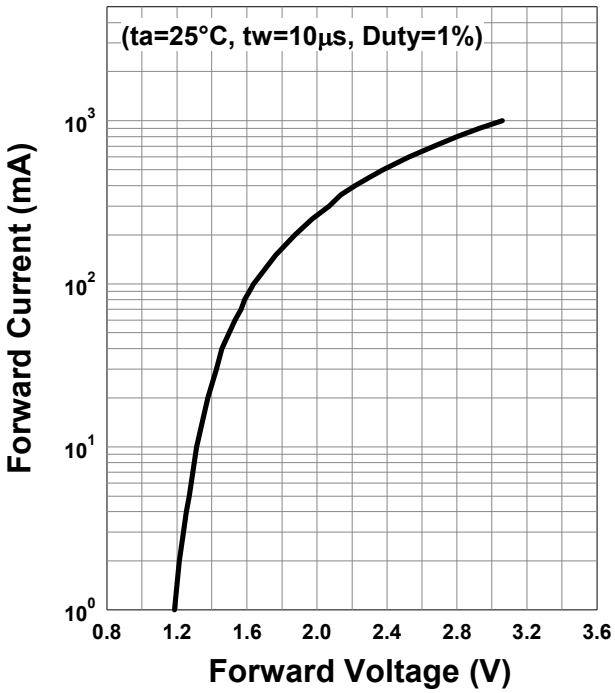
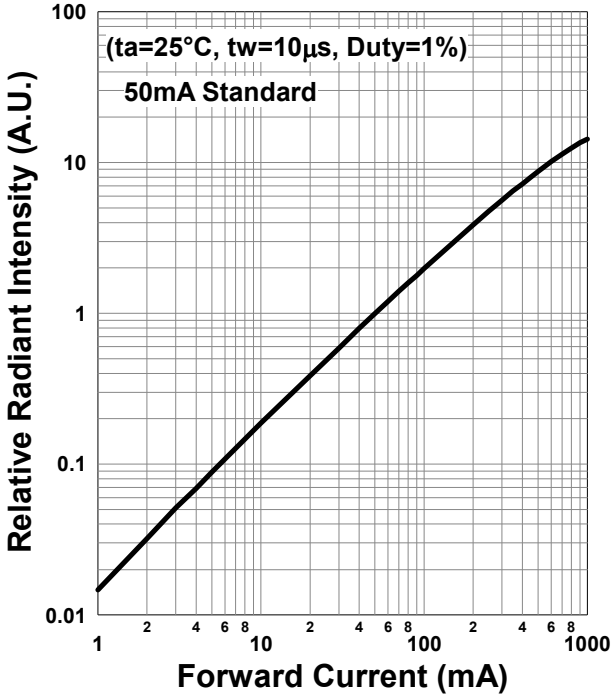
Typical Characteristic Curves

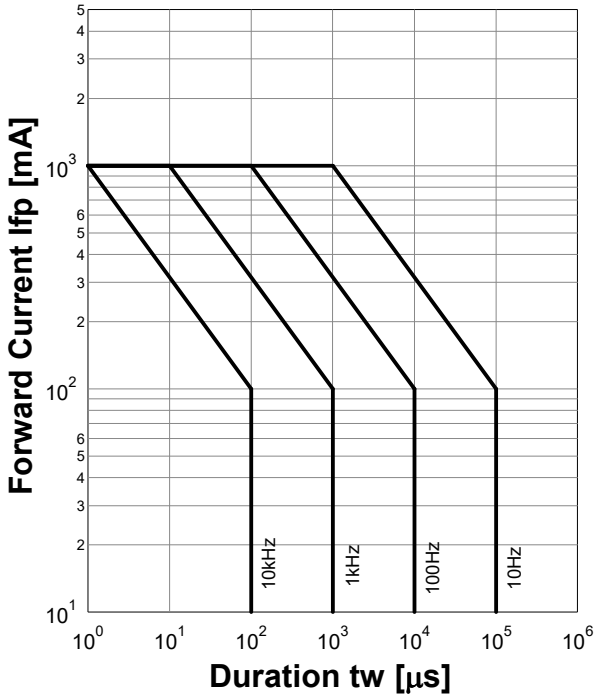
Forward Current - Forward Voltage



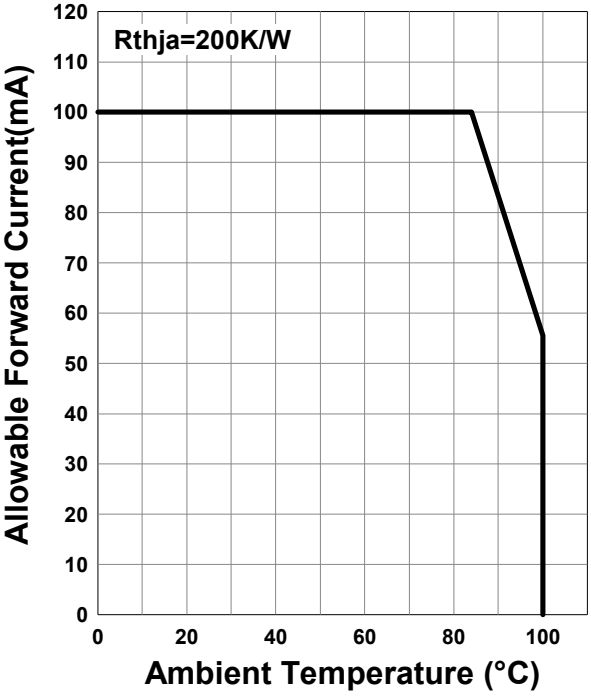
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration



Allowable Forward Current - Ambient Temperature



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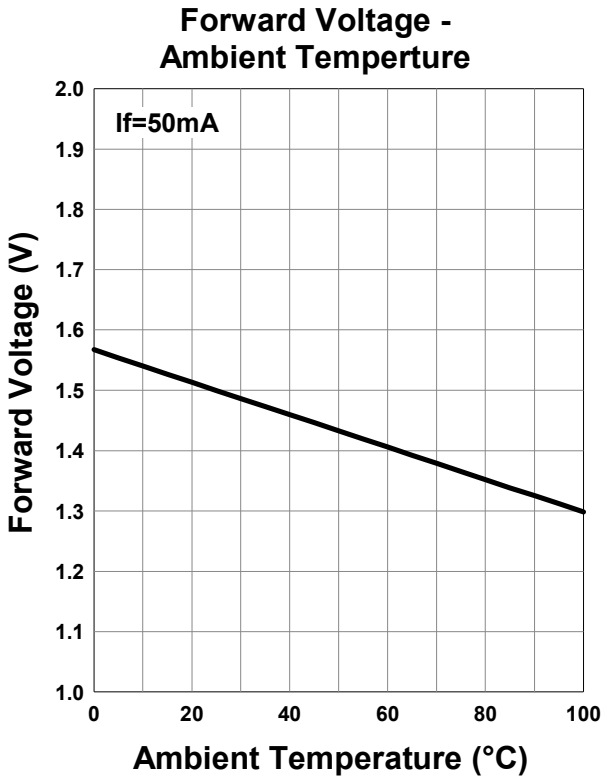

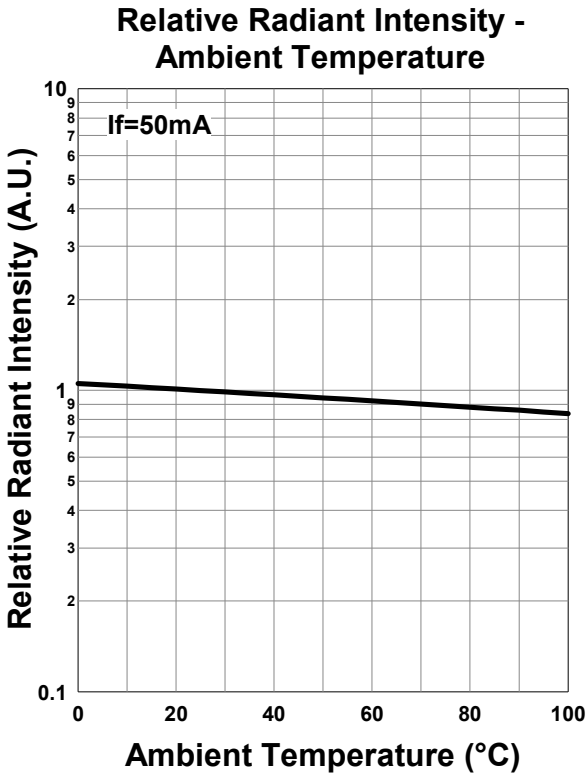

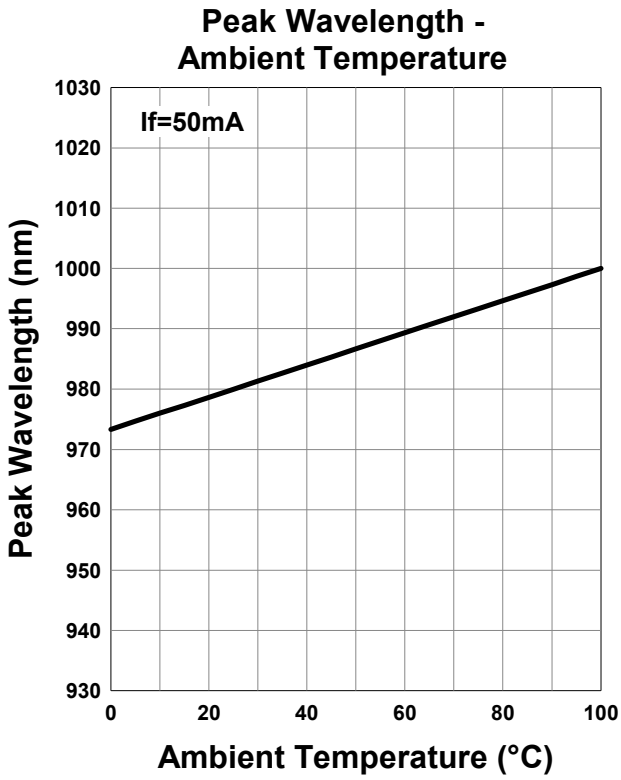

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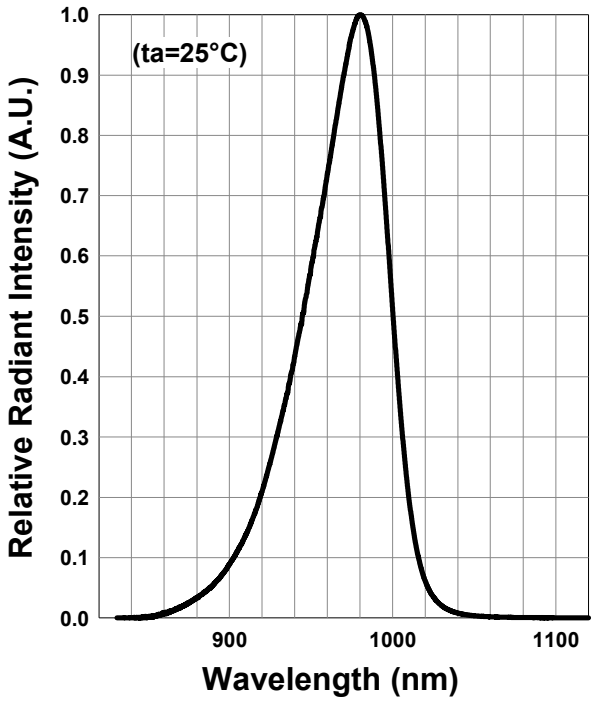
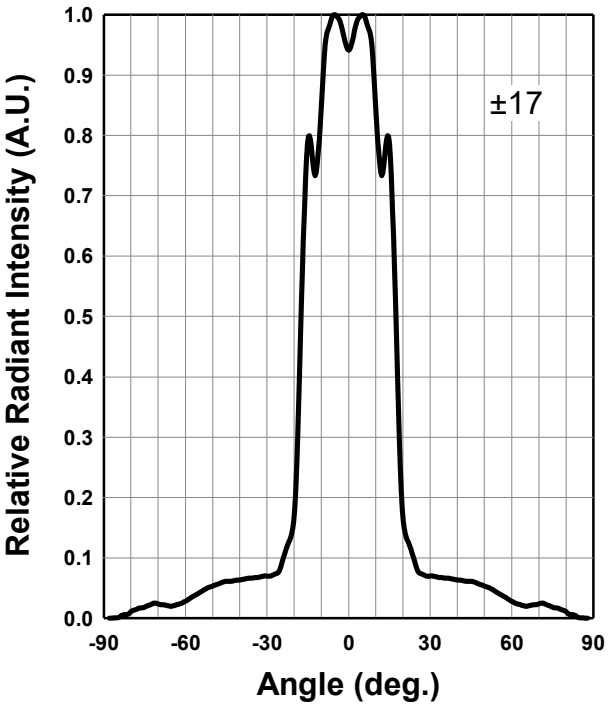
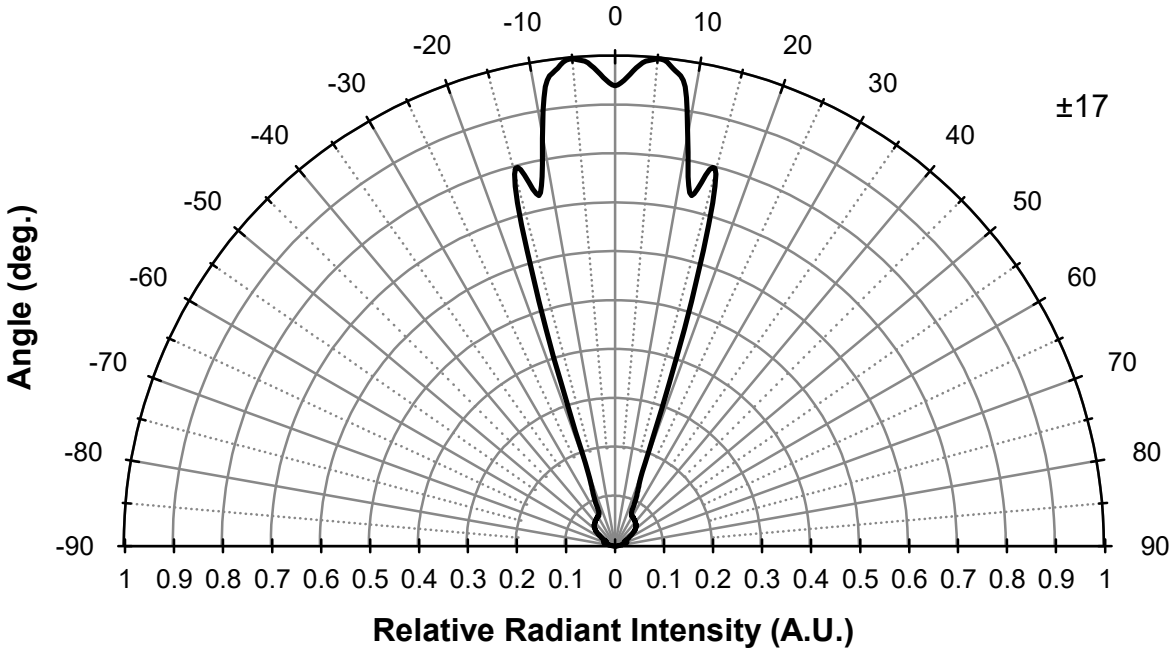
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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