

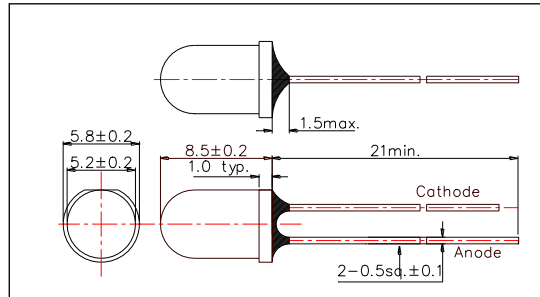
L970D-02 Infrared LED Lamp

L970D-02 is an AlGaAs LED mounted on a lead frame with a clear epoxy lens. On forward bias it emits a spectral band of radiation, which peaks at 970nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L970D-02
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 970nm typ.
4. Package
 - Type: Φ5mm Clear Molding
 - Resin Material: Epoxy Resin
 - Lead Frame: Soldered (Lead Free)

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	180	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1000	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	120	°C
Thermal Resistance	Rthja	200	K/W
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature**	TSOL	250	°C

* Duty=1% and Pulse Width=10us.

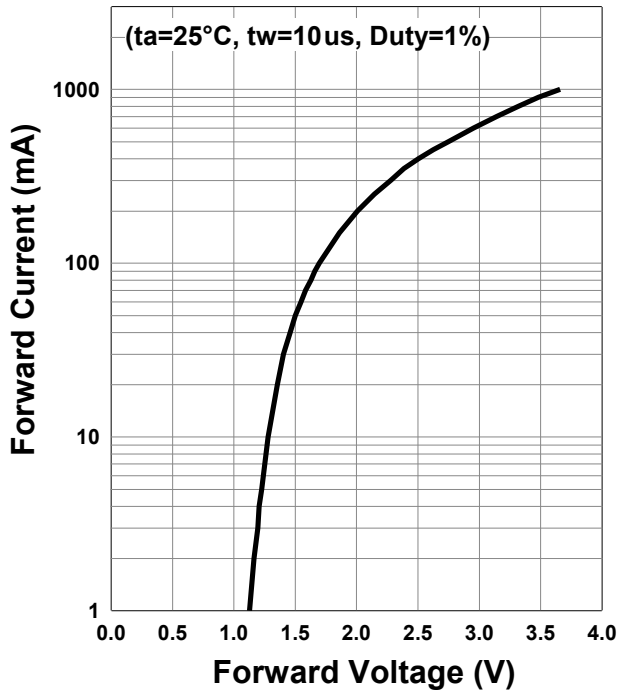
** Soldering condition must be completed within 5 second at 250 °C.

Electro-Optical Characteristics[Ta=25°C]						
Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	IF=50mA		1.5	(1.8)	V
		IF=100mA t=20ms		1.7		
	VFP	IPF=1A		3.7		
Total Radiated Power*	PO	IF=50mA		29		mW
		IF=100mA t=20ms		57		
		IPF=1A		320		
Radiant Intensity**	IE	IF=50mA		545		mW/sr
		IF=100mA t=20ms		1080		
		IPF=1A		6000		
Peak Wavelength	λP	IF=50mA	96	970	980	nm
Half Width	Δλ	IF=50mA		55		nm
Viewing Half Angle	θ 1/2	IF=50mA		±3		deg.
Rise Time	tr	IF=50mA		25		ns
Fall Time	tf	IF=50mA		25		ns

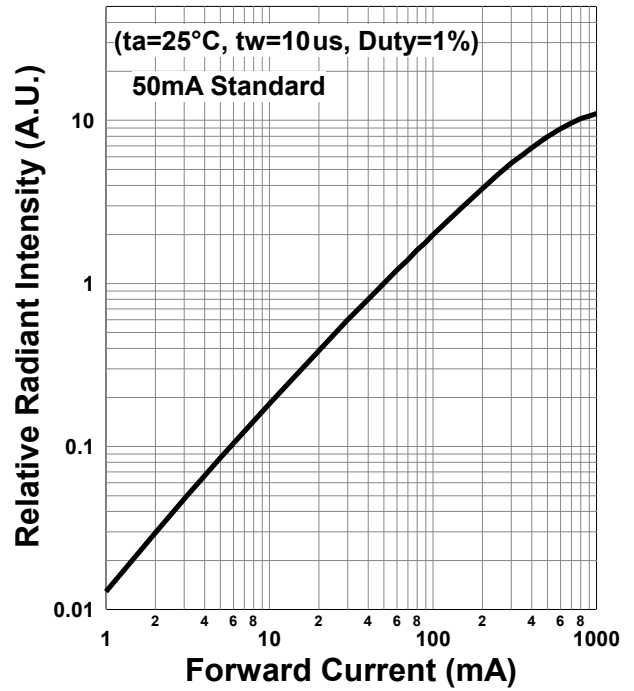
* Measured by S3584-08

** Measured by CIE127-2007 Condition B

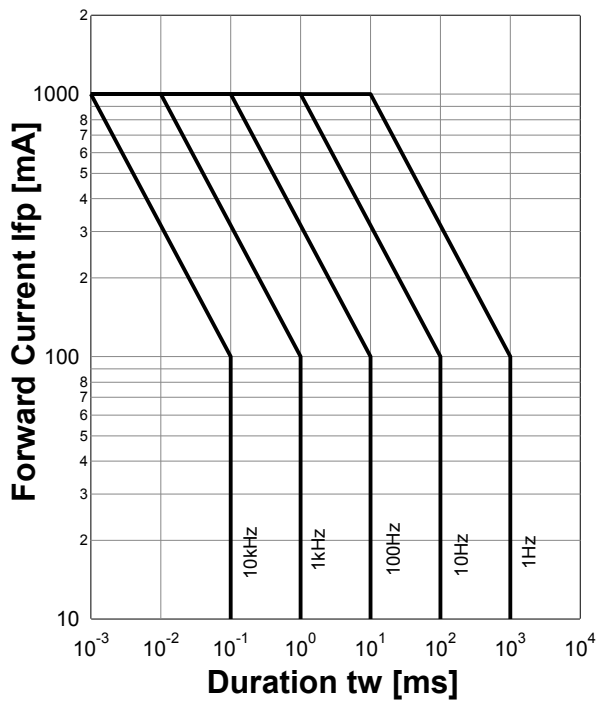
Forward Current - Forward Voltage



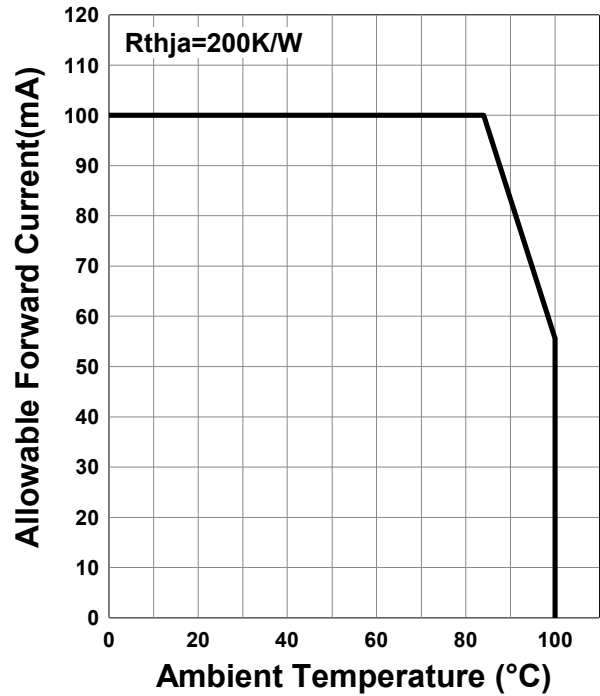
Relative Radiant Intensity - Forward Current

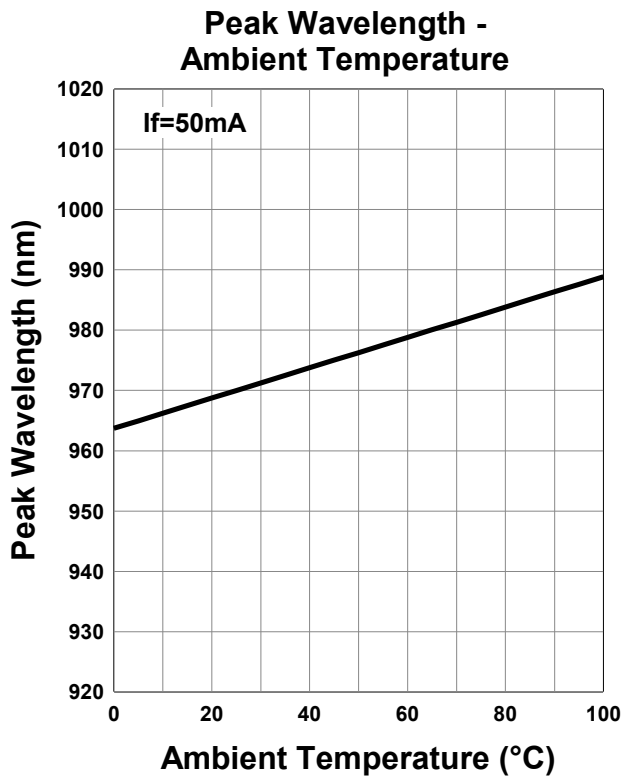
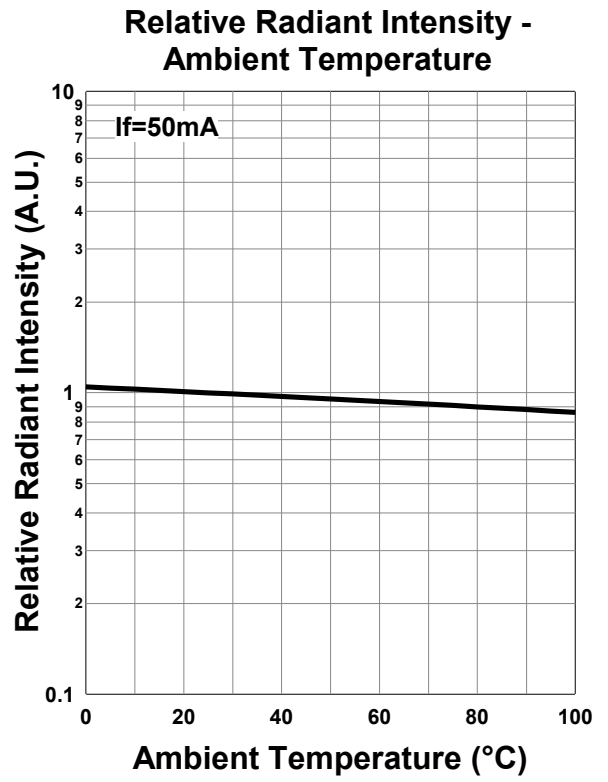
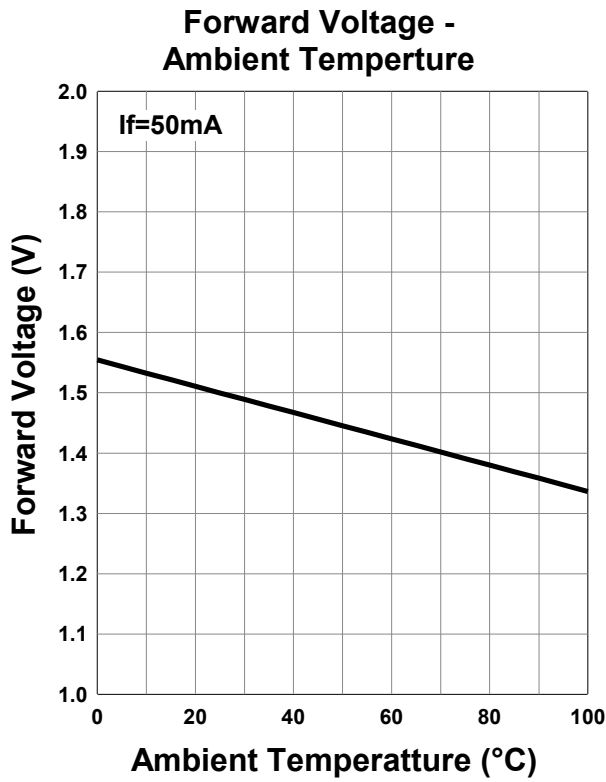


Forward Current - Pulse Duration

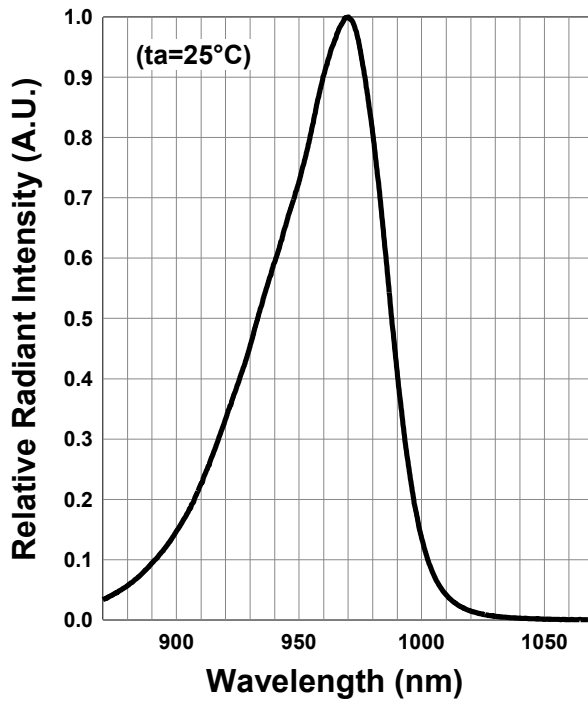


Allowable Forward Current - Ambient Temperature

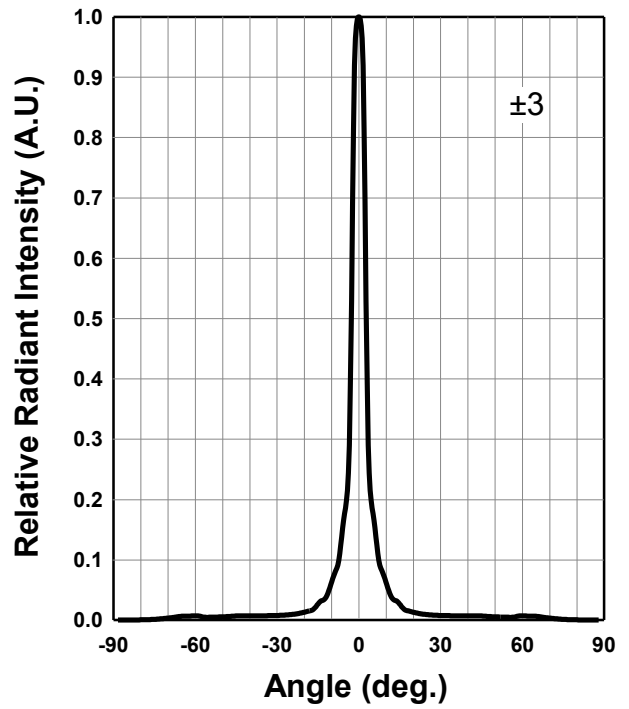




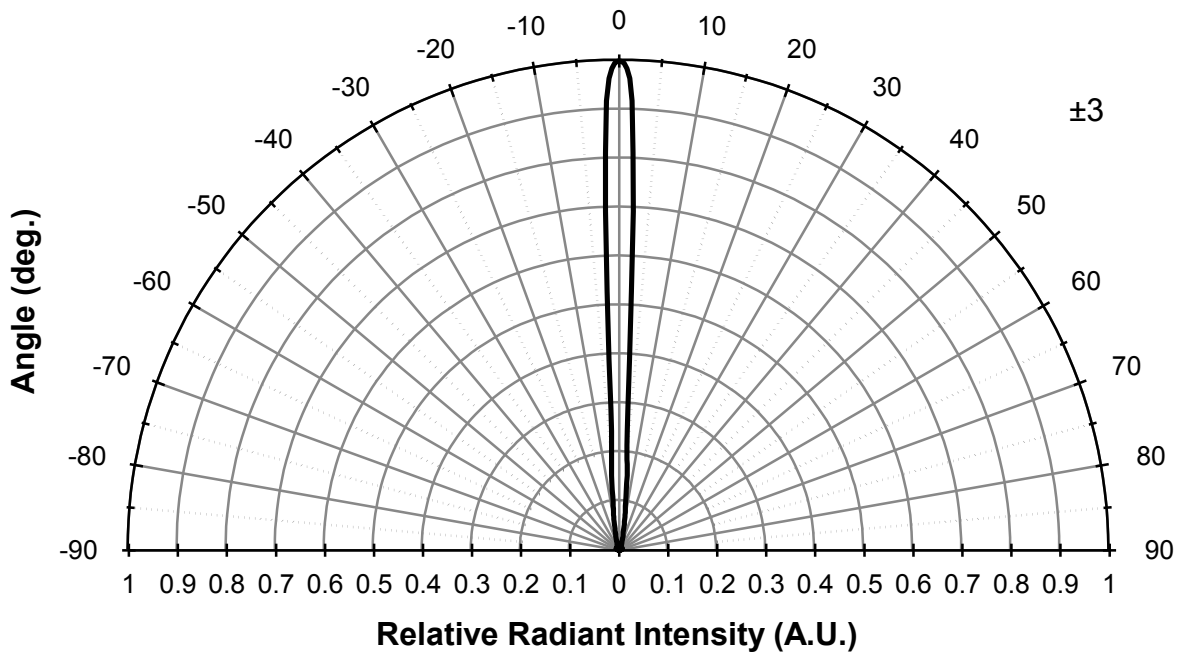
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

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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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