

L970D-06

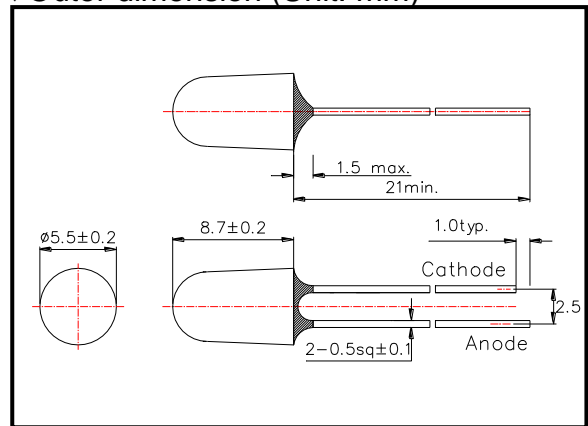
Infrared LED Lamp

L970D-06 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 No. L970D-06
- 3) Chip
- (1) Chip Material AlGaAs
- (2) Peak Wavelength 970nm 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	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	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

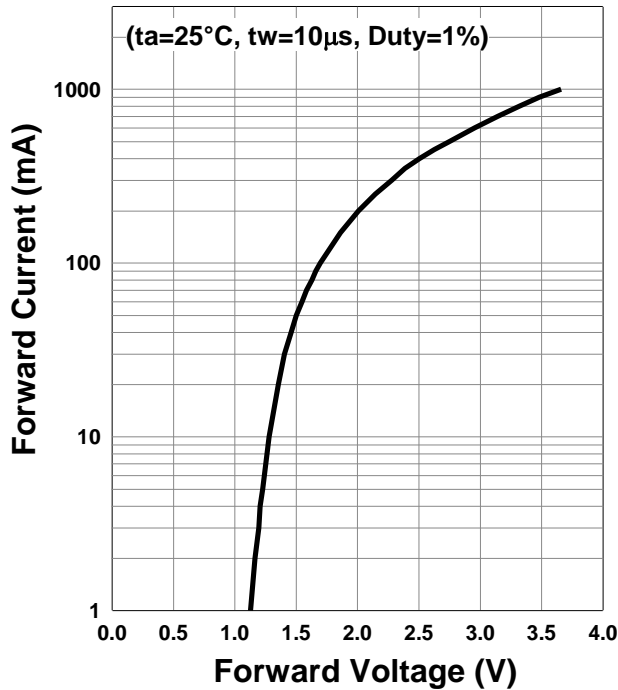
♦ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.5	(1.8)	V
		IF=100mA t=20ms		1.7		
	VFP	I _{FP} =1A		3.7		
Radiated Power	PO	IF=50mA		29		mW
		IF=100mA t=20ms		57		
		I _{FP} =1A		320		
Radiant Intensity	IE	IF=50mA		585		mW/sr
		IF=100mA t=20ms		1150		
		I _{FP} =1A		6400		
Peak Wavelength	λ _P	IF=50mA	960	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

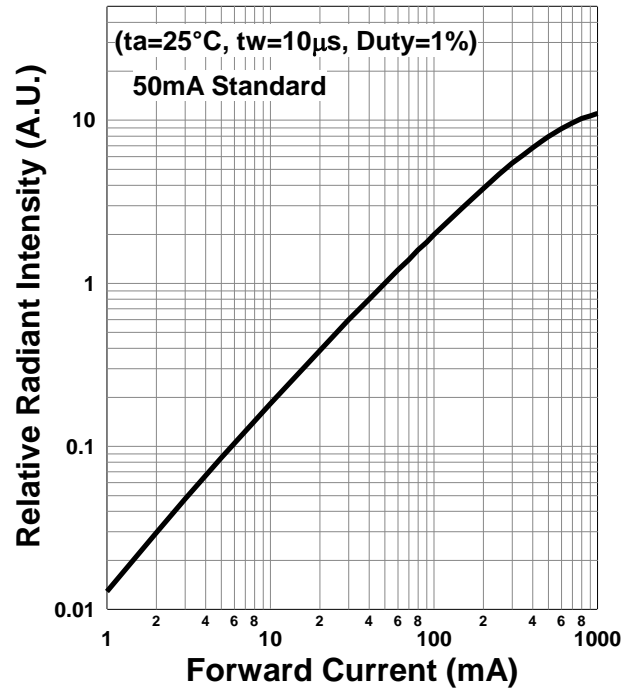
‡Radiated Power is measured by S3584-08.

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

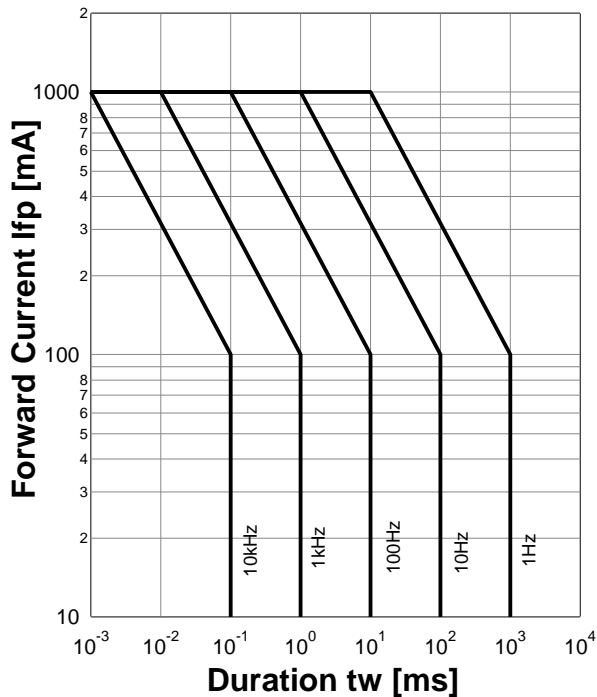
Forward Current - Forward Voltage



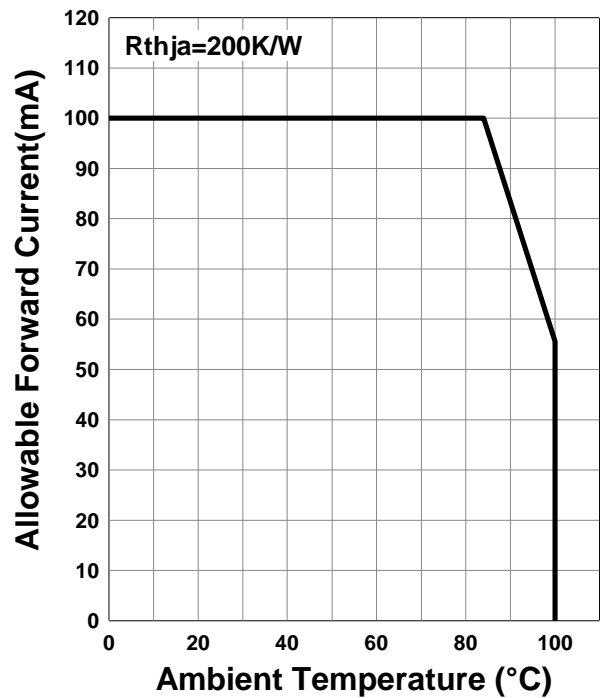
Relative Radiant Intensity - Forward Current



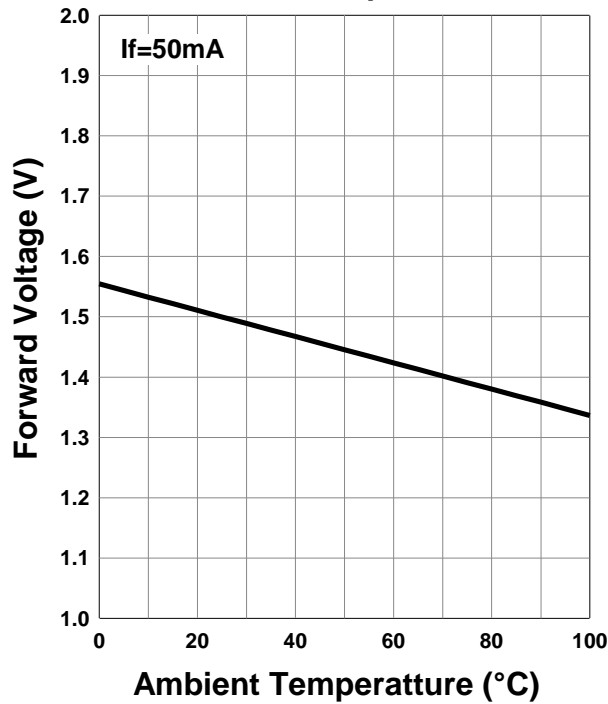
Forward Current - Pulse Duration



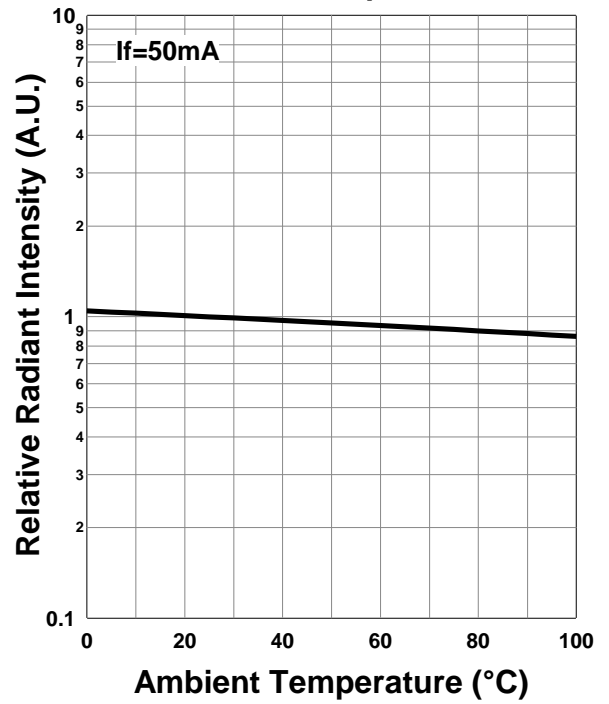
Allowable Forward Current - Ambient Temperature



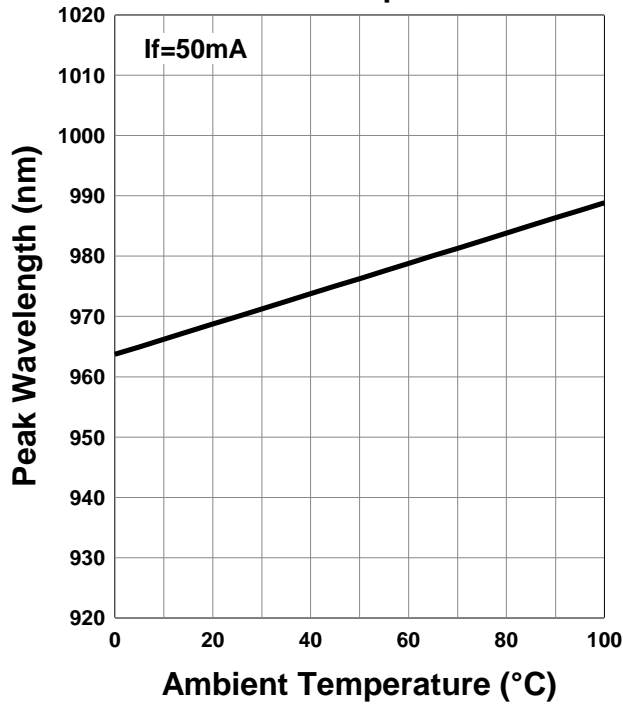
Forward Voltage - Ambient Temperature



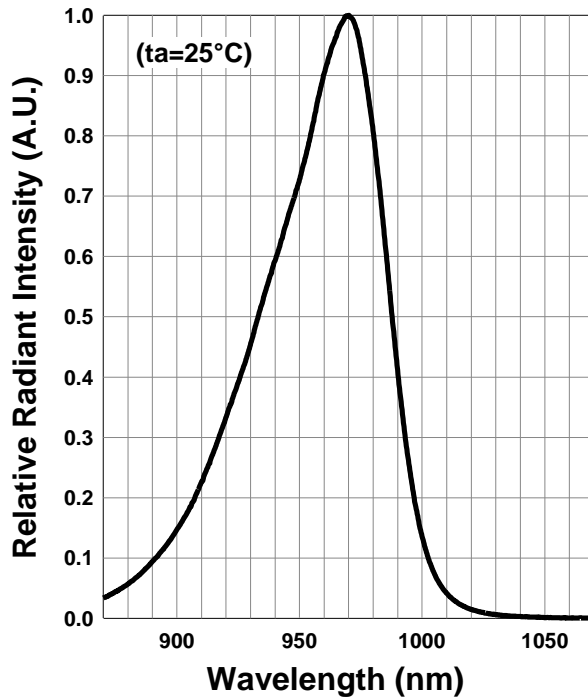
Relative Radiant Intensity - Ambient Temperature



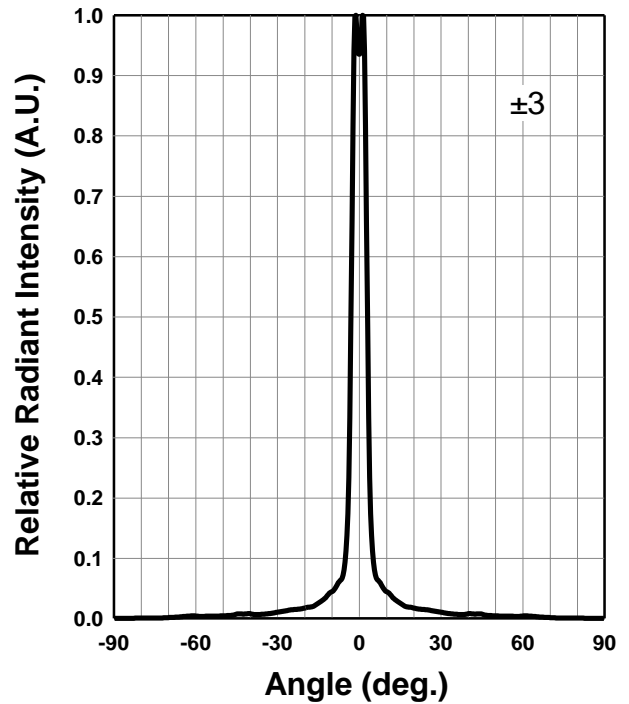
Peak Wavelength - Ambient Temperature



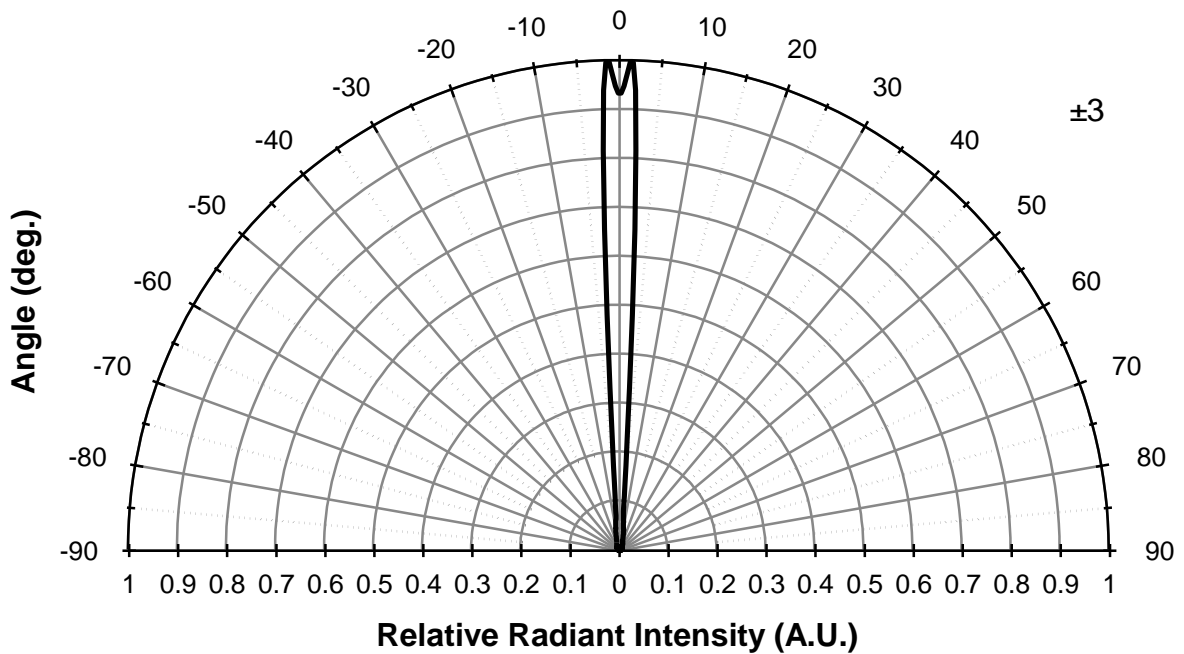
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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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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