

# L980-05

## Infrared LED Lamp

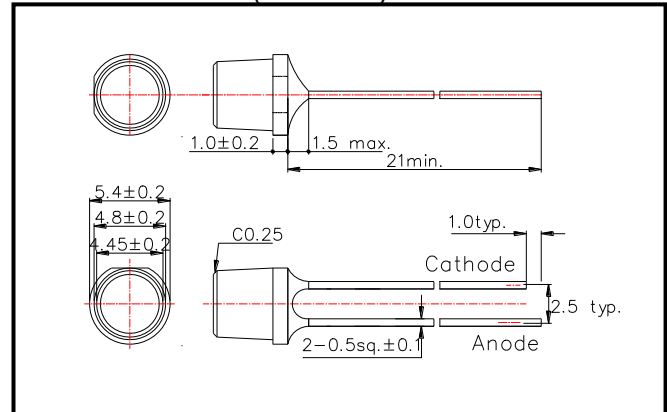
L980-05 is a GaAs LED mounted on a lead frame with a clear epoxy lens.

On forward bias it emits a spectral band of radiation, which peaks at 985nm.

### ◆ Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L980-05
3) Chip	
(1) Chip Material	GaAs
(2) Chip Dimension	350um*350um
(3) Peak Wavelength	985nm typ.
4) Package	
(1) Type	Φ5mm clear molding
(2) Resin Material	Epoxy Resin
(3) Lead Frame	Soldered

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	140	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	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 within 3 seconds at 265°C

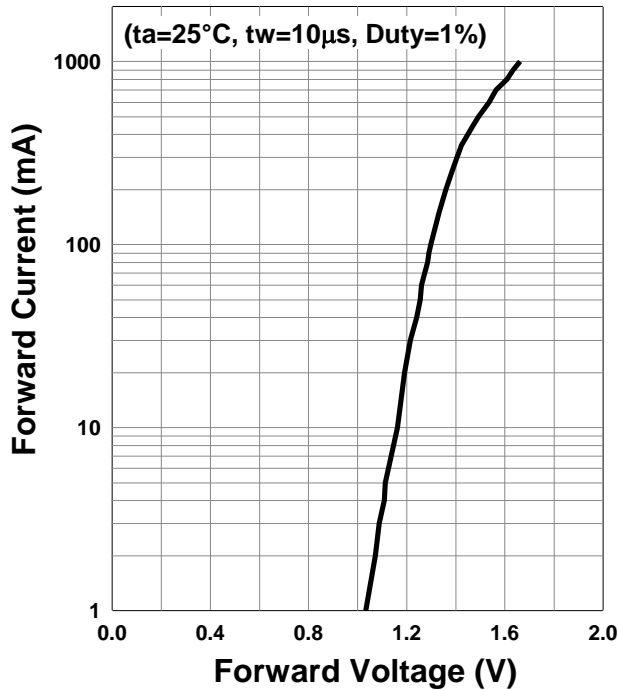
### ◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.25	1.4	V
Radiated Power	PO	IF=50mA		3.5		mW
Radiant Intensity	IE	IF=50mA		10		mW/sr
Peak Wavelength	λP	IF=50mA		985		nm
Half Width	Δλ	IF=50mA		45		nm
Viewing Half Angle	θ 1/2	IF=50mA		±36		deg.
Rise Time	tr	IF=50mA		40		ns
Fall Time	tf	IF=50mA		20		ns

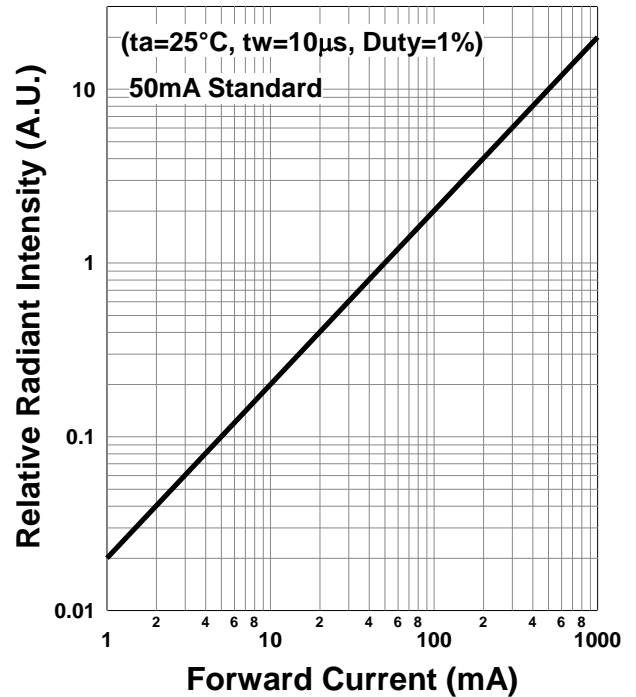
‡Radiated Power is measured by S3584-08.

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

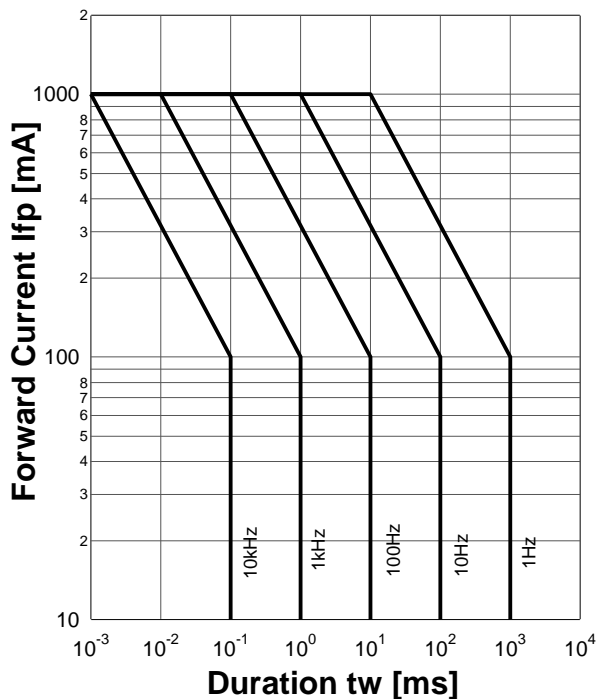
**Forward Current - Forward Voltage**



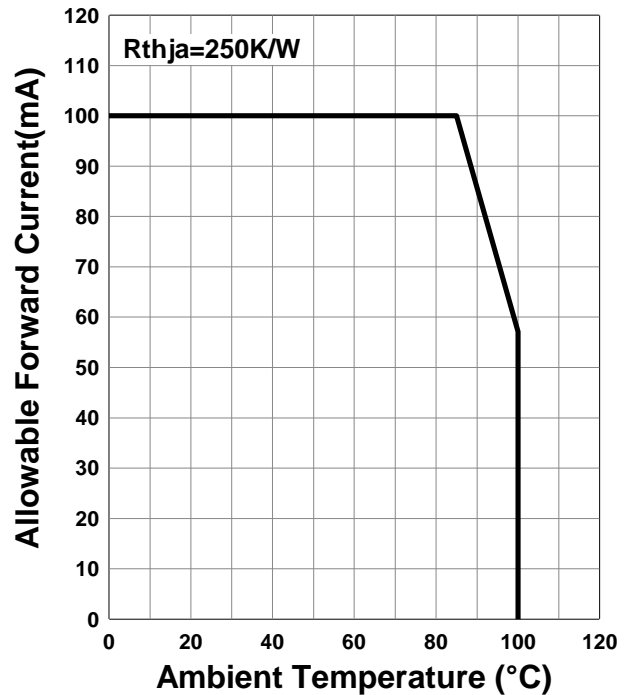
**Relative Radiant Intensity - Forward Current**

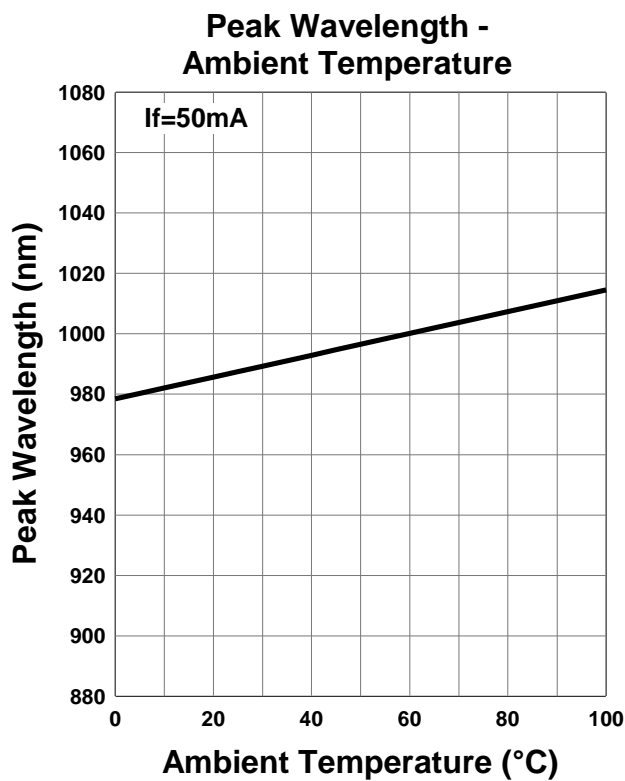
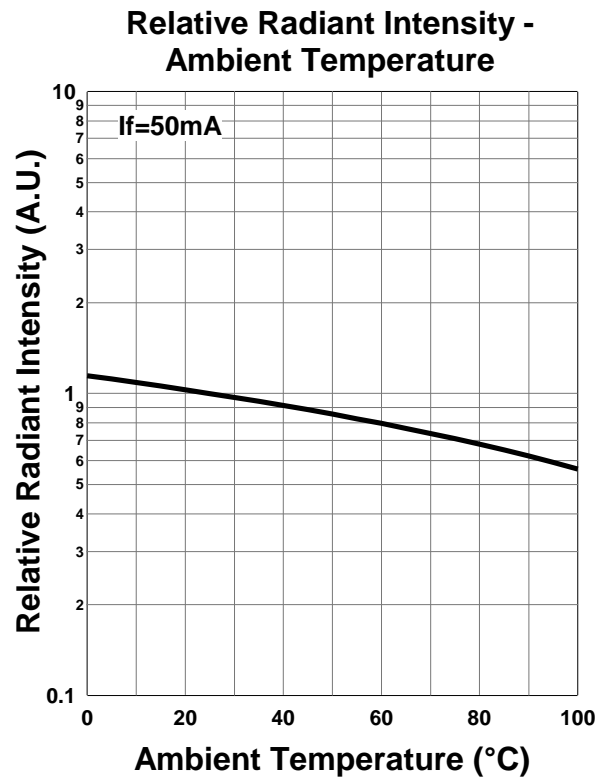
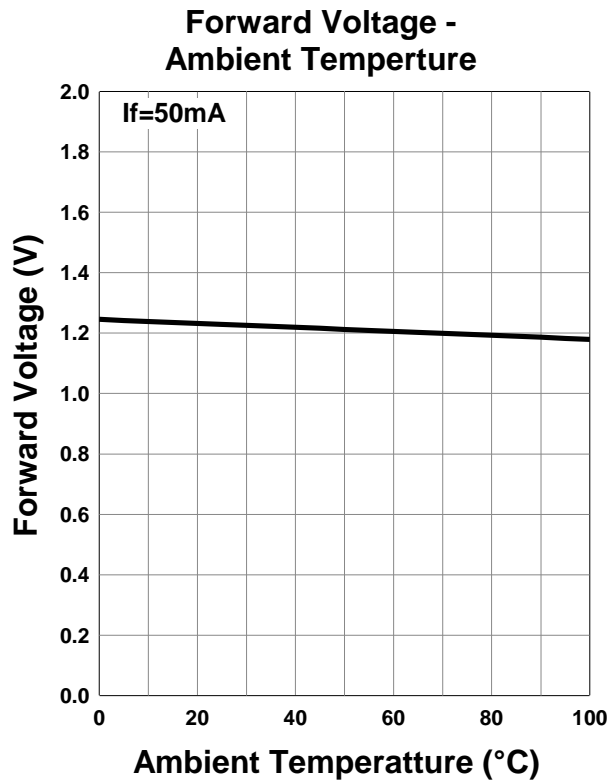


**Forward Current - Pulse Duration**

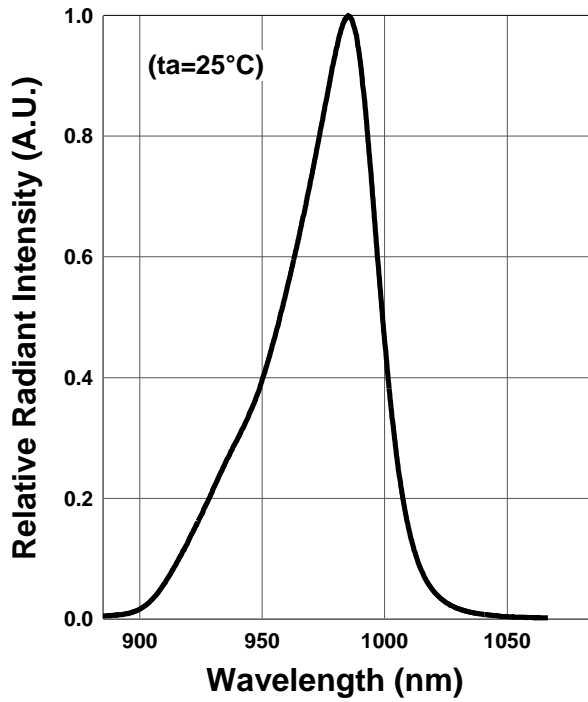


**Allowable Forward Current - Ambient Temperature**

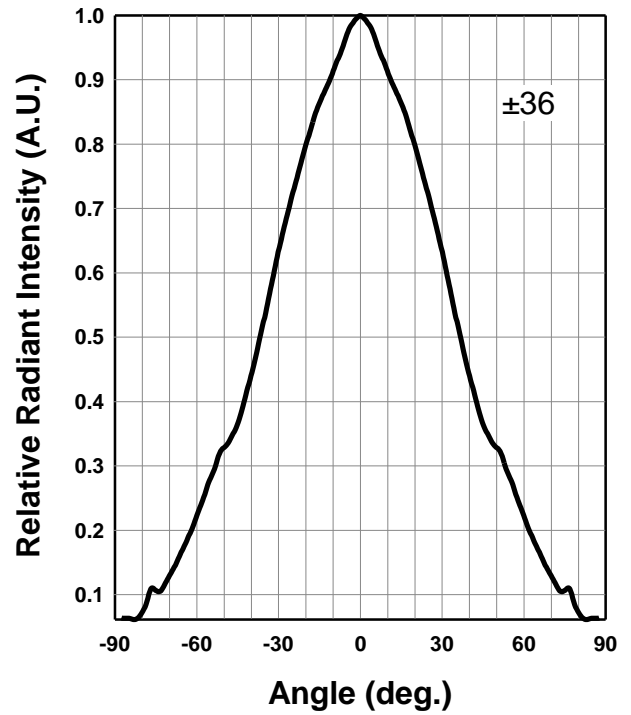




Relative Spectral Emission



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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