

L940-01V

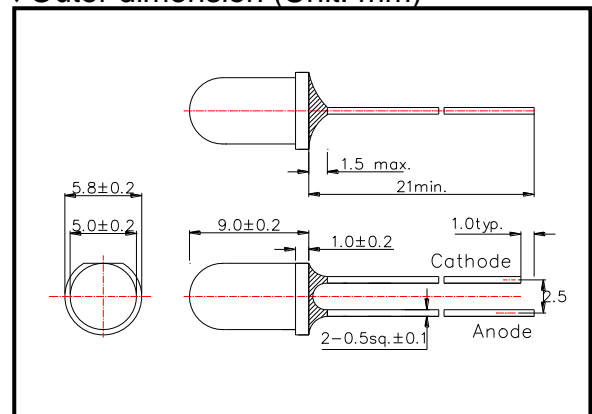
Infrared LED Lamp

L940-01V 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 940nm.

◆ Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L940-01V
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	940nm typ.
4) Package	
(1) Type	Φ5mm clear molding
(2) Resin Material	Epoxy Resin
(3) Lead Frame	Soldered (Lead Frame)

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	150	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	260	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

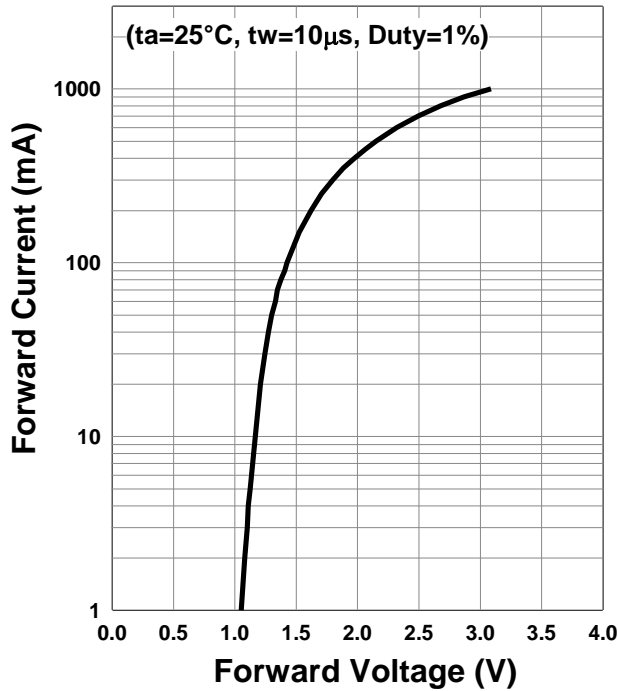
◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.3	1.5	V
	VFP	IFP=1A		3.1		
Radiated Power	PO	IF=50mA		16		mW
		IFP=1A		270		
Radiant Intensity	IE	IF=50mA		65		mW/sr
		IFP=1A		1100		
Peak Wavelength	λ_P	IF=50mA	930	940	950	nm
Half Width	$\Delta\lambda$	IF=50mA		56		nm
Viewing Half Angle	$\theta_{1/2}$	IF=50mA		±11		deg.
Rise Time	tr	IF=50mA		1600		ns
Fall Time	tf	IF=50mA		1900		ns

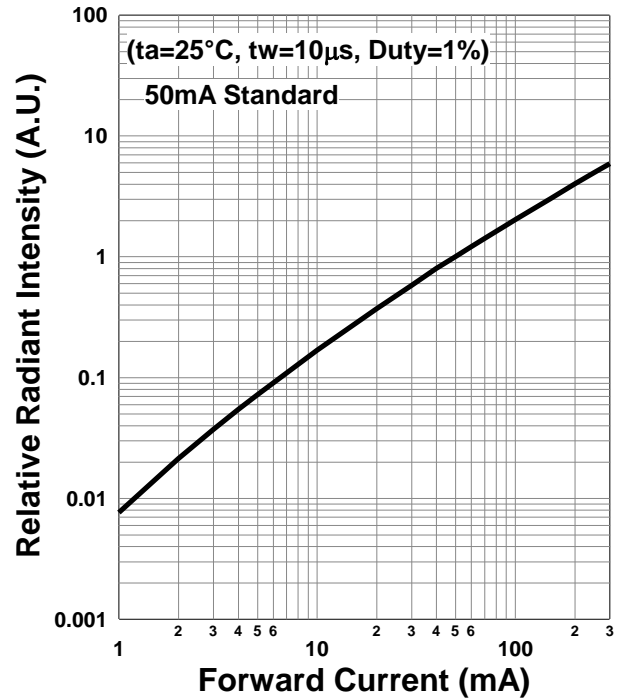
‡Radiated Power is measured by S3584-08.

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

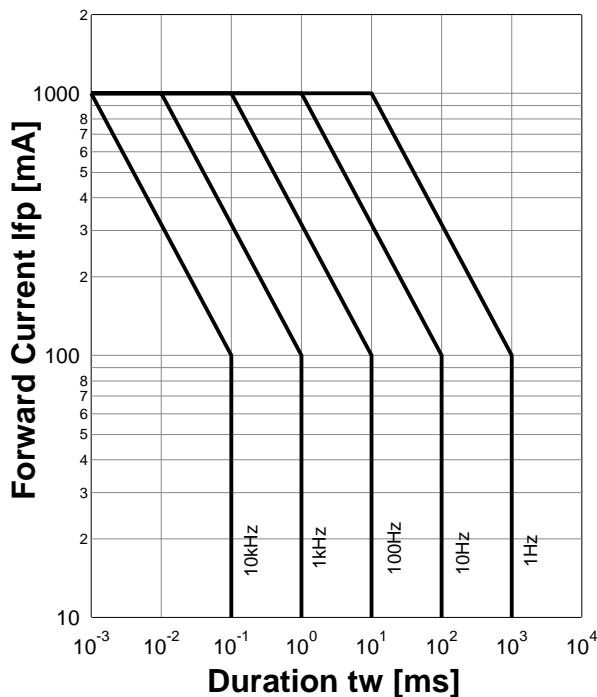
Forward Current - Forward Voltage



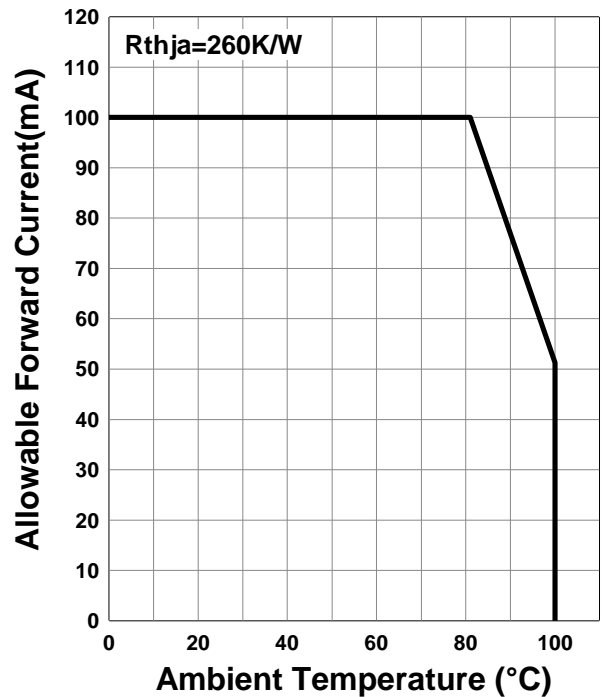
Relative Radiant Intensity - Forward Current



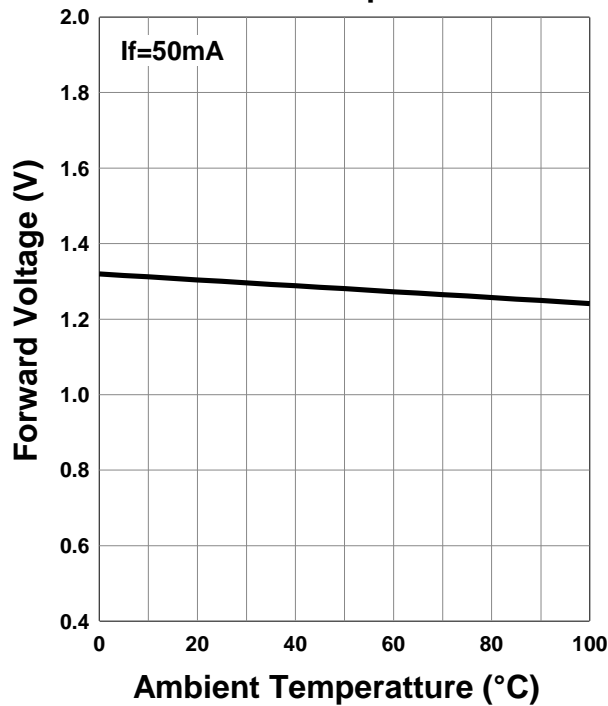
Forward Current - Pulse Duration



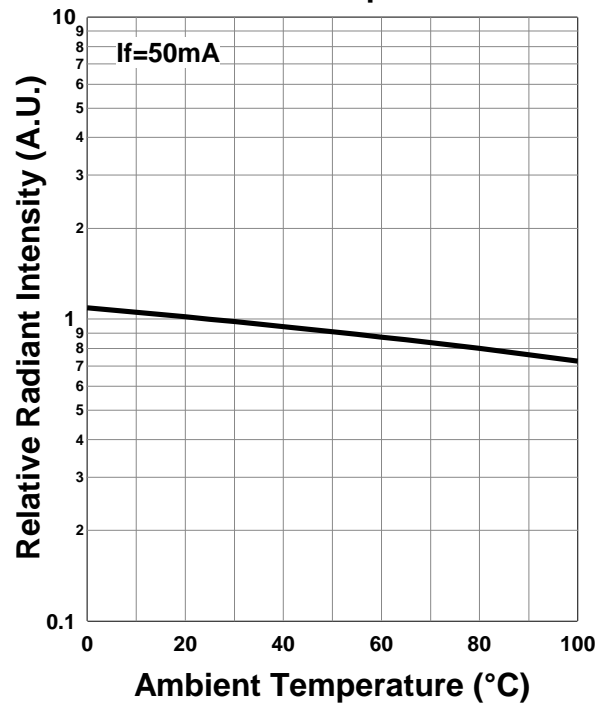
Allowable Forward Current - Ambient Temperature



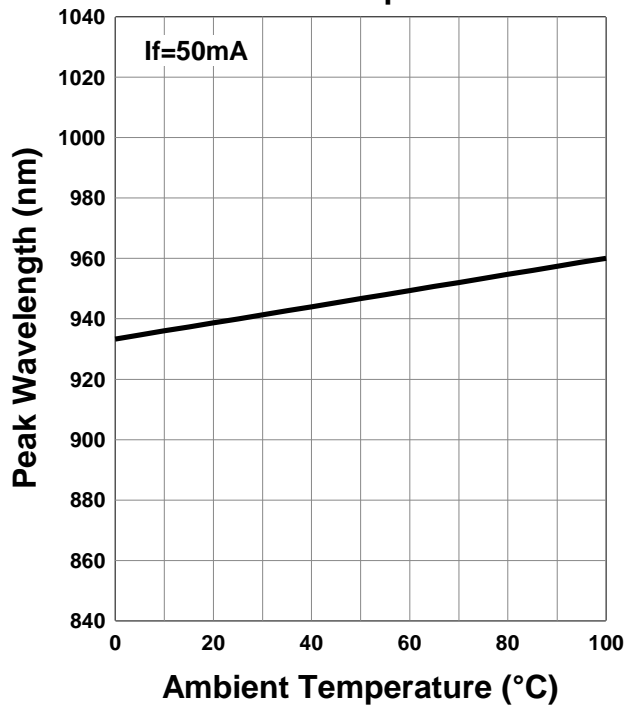
Forward Voltage - Ambient Temperature



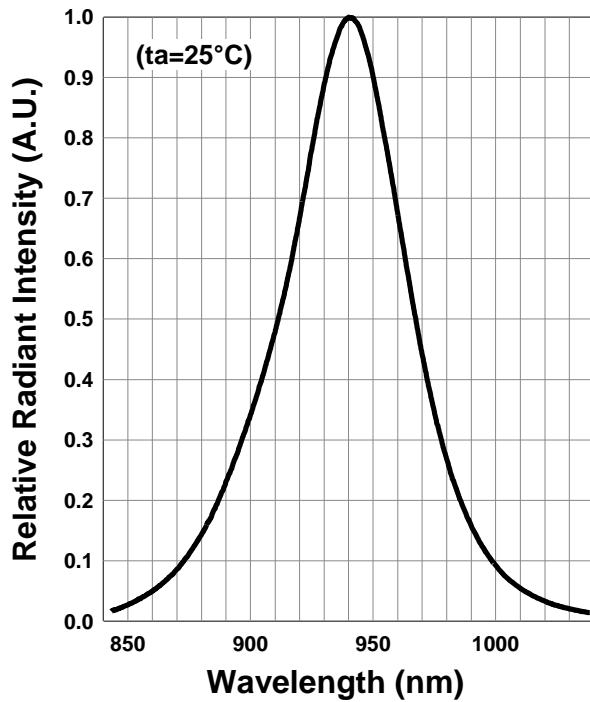
Relative Radiant Intensity - Ambient Temperature



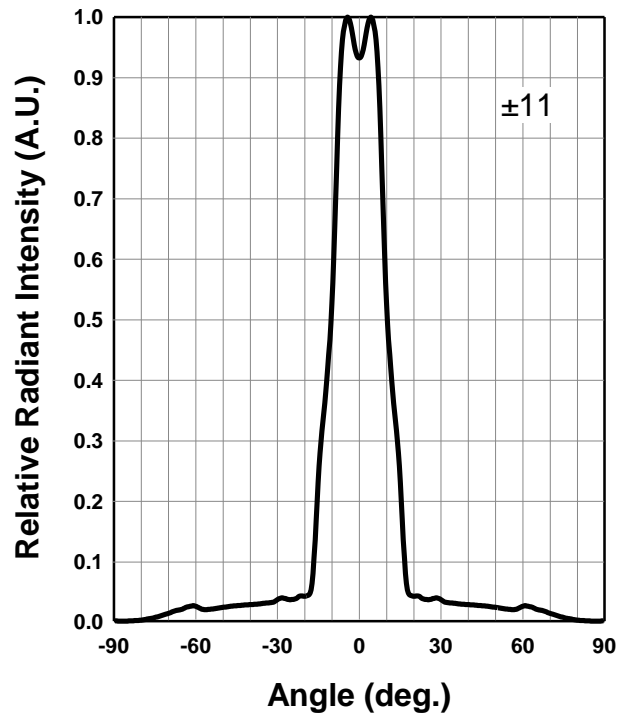
Peak Wavelength - Ambient Temperature



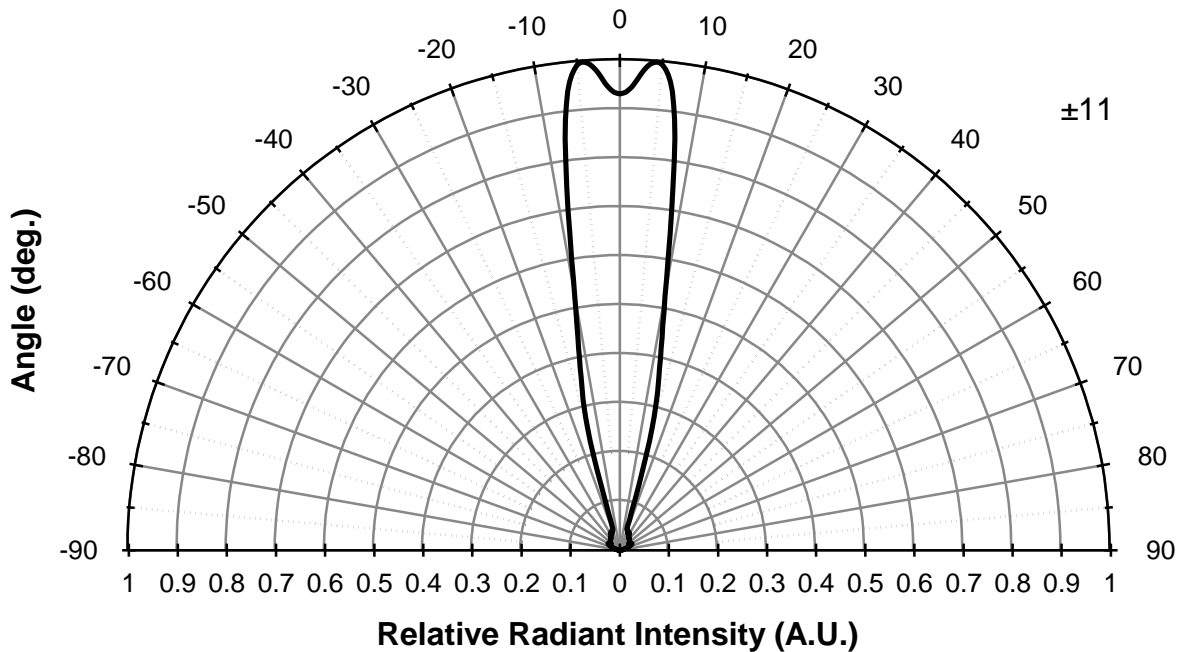
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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