

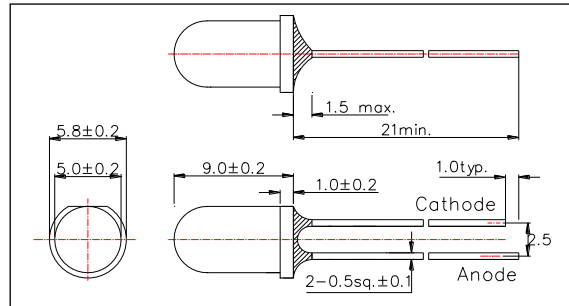
L940-01V
Infrared LED Lamp

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 that peaks at 940nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L940-01V
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 940nm typ.
4. Package
 - Type: Φ5mm Clear Molding
 - Resin Material: Epoxy Resin
 - 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
Junction Temperature	Tj	120	°C
Thermal Resistance**	Rthja	260	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.

** Junction - ambient, leads 7mm, soldered on PCB.

*** Soldering condition must be completed within 3 second at 250°C.

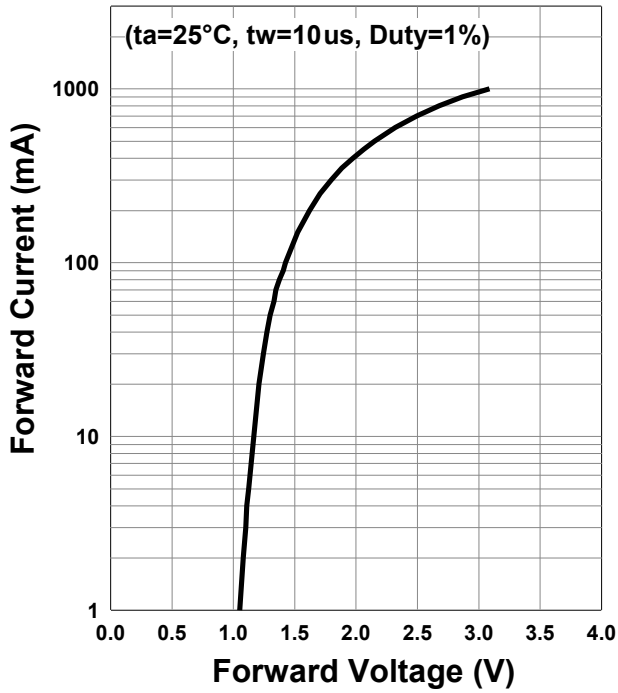
Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.3	1.5	V
	VFP	IFP=1A		3.1		
Total Radiated Power*	PO	IF=50mA		16		mW
		IFP=1A		270		
Radiant Intensity**	IE	IF=50mA		65		mW/sr
		IFP=1A		1100		
Peak Wavelength	λP	IF=50mA	930	940	950	nm
Half Width	Δλ	IF=50mA		56		nm
Viewing Half Angle	θ1/2	IF=50mA		±11		deg
Rise Time	tr	IF=50mA		1600		ns
Fall Time	tf	IF=50mA		1900		ns

* Measured by S3584-08

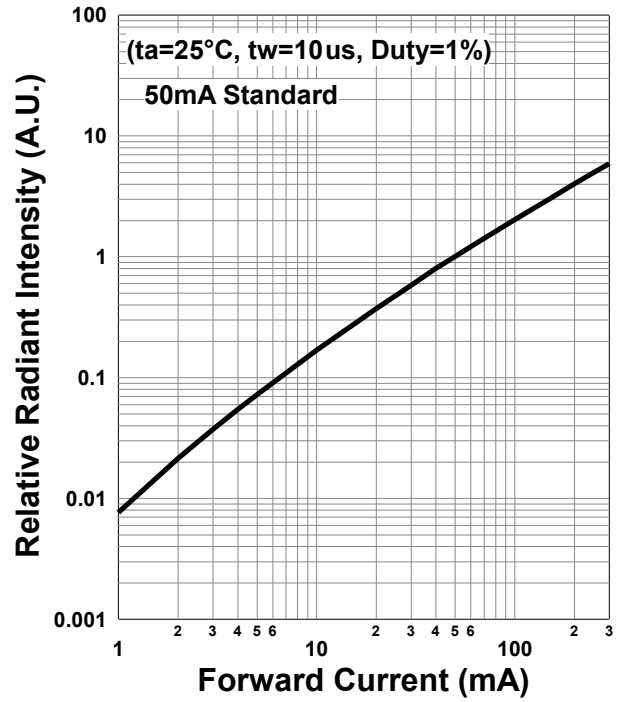
** Measured by CIE127-2007 Condition B



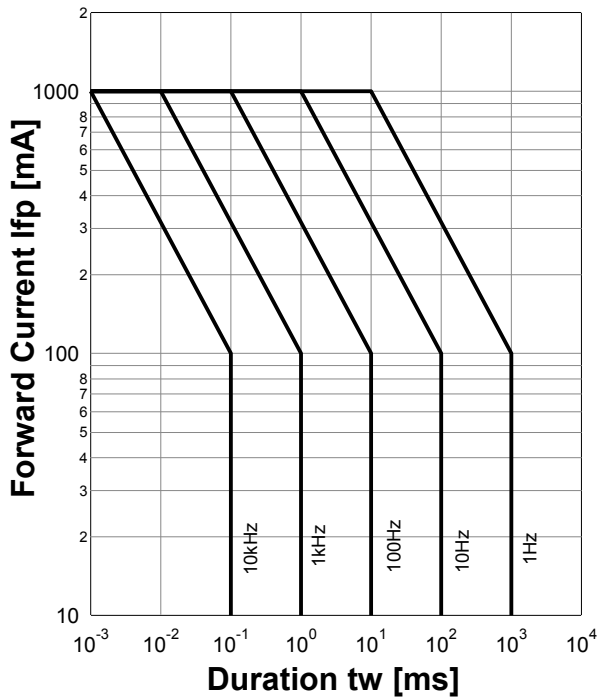
Forward Current - Forward Voltage



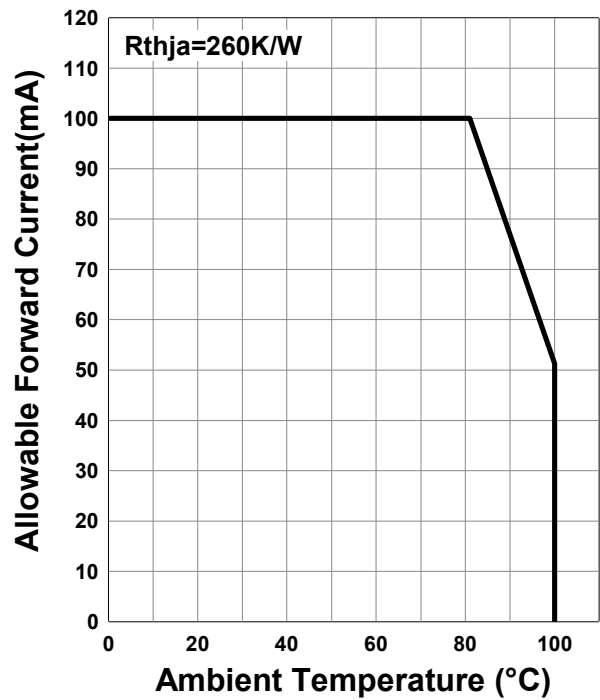
Relative Radiant Intensity - Forward Current

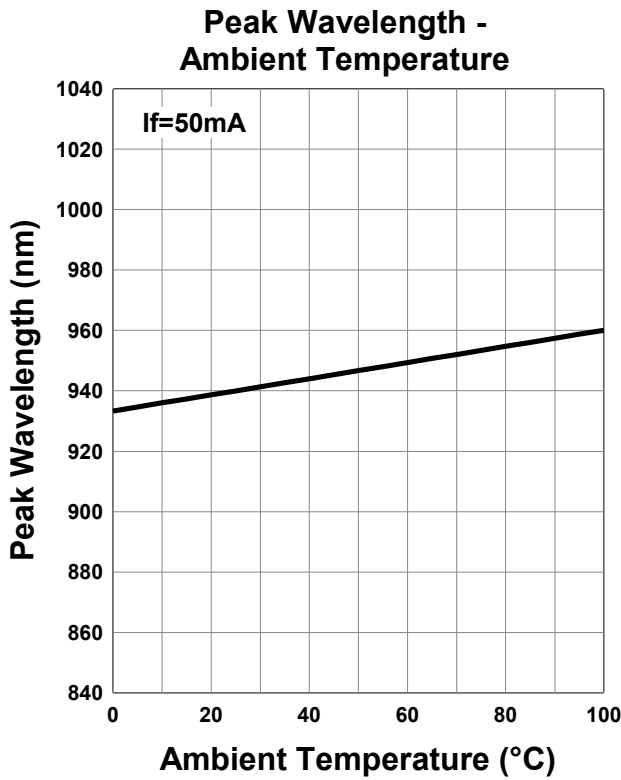
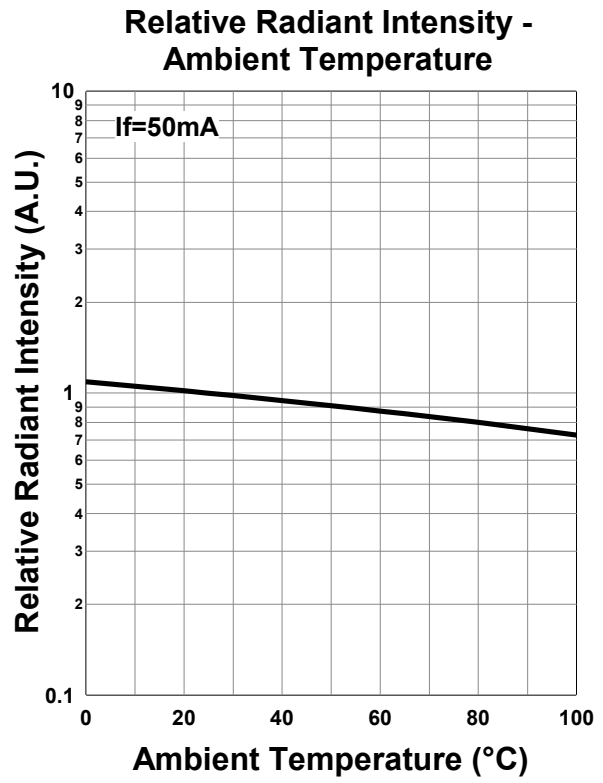
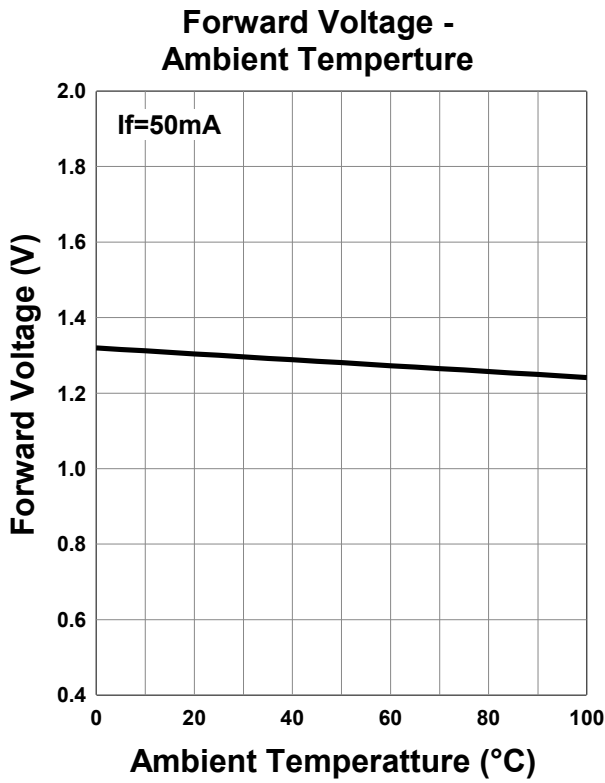


Forward Current - Pulse Duration

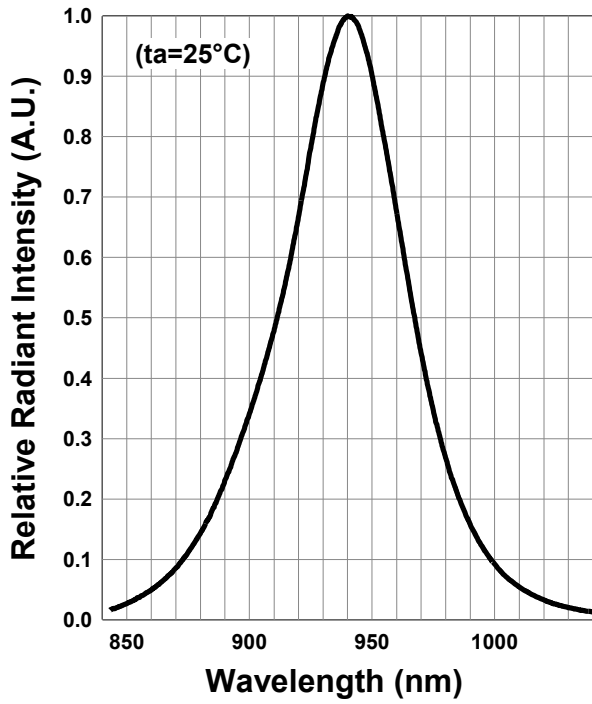


Allowable Forward Current - Ambient Temperature

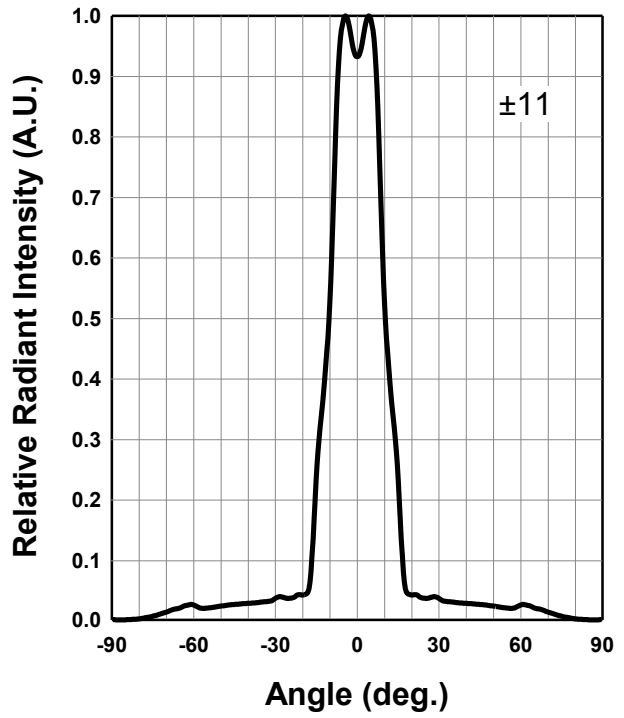




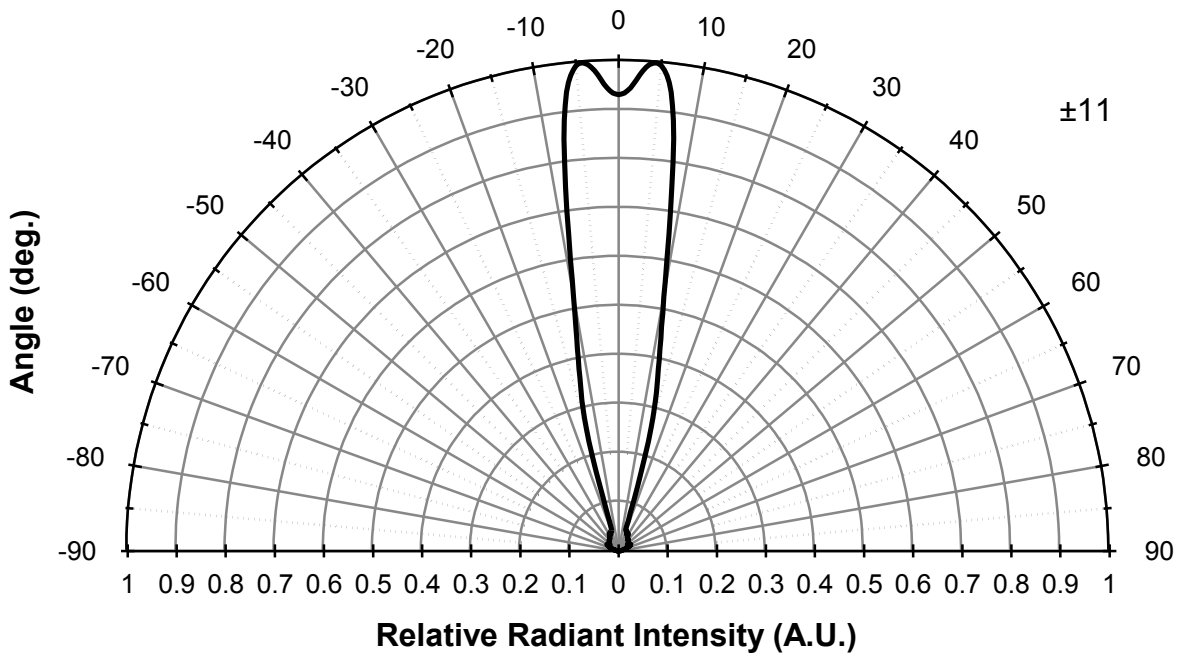
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

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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