

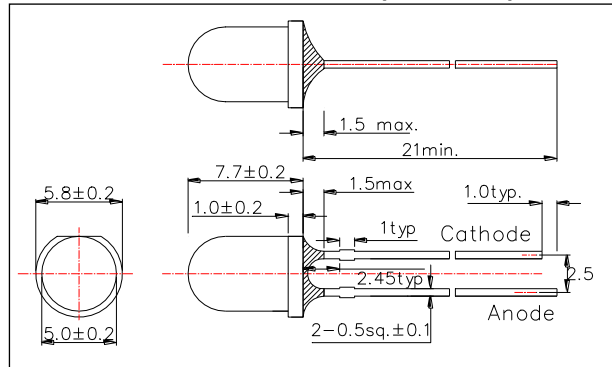
L940D-04 Infrared LED Lamp

L940D-04 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 Number: L940D-04
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 940nm 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	170	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	180	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.

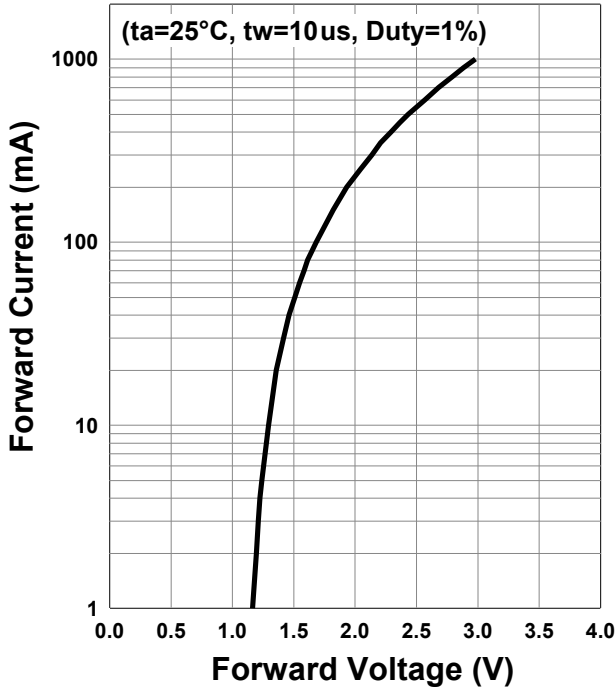
Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.5	1.7	V
Total Radiated Power*	PO	IF=50mA		25		mW
Radiant Intensity**	IE	IF=50mA		50		mW/sr
Peak wavelength	λP	IF=50mA	930	940	950	nm
Half Width	Δλ	IF=50mA		40		nm
Viewing Half Angle	θ1/2	IF=50mA		±11		deg
Rise Time	tr	IF=50mA		22		ns
Fall Time	tf	IF=50mA		25		ns

* Measured by S3584-08

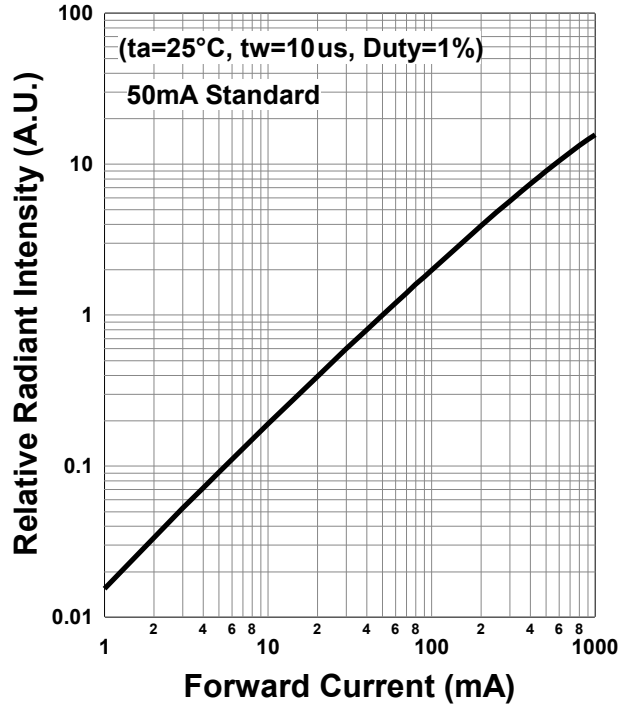
** Measured by CIE127-2007 Condition B



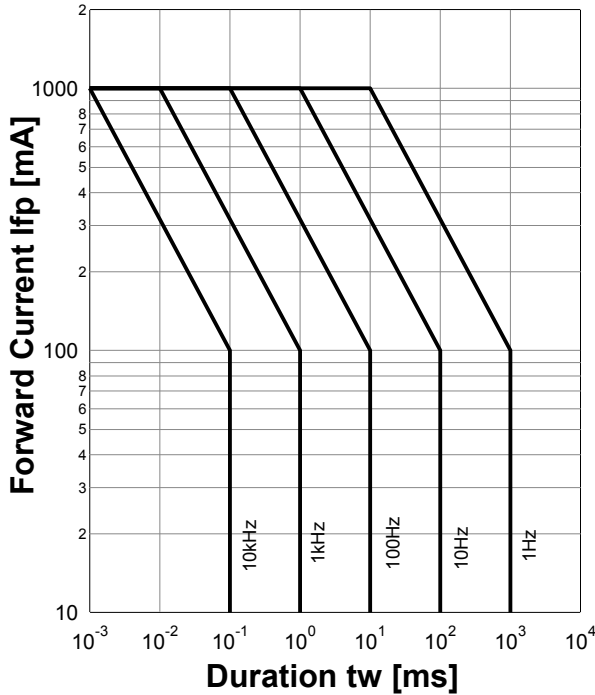
Forward Current - Forward Voltage



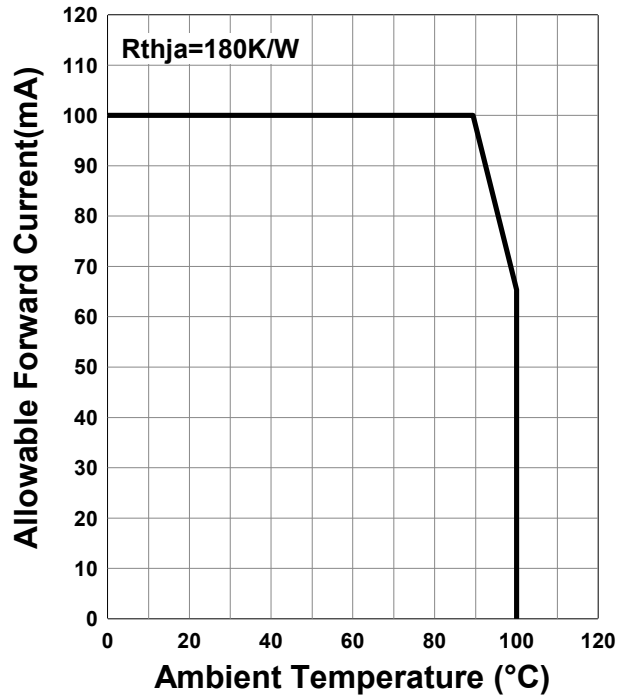
Relative Radiant Intensity - Forward Current



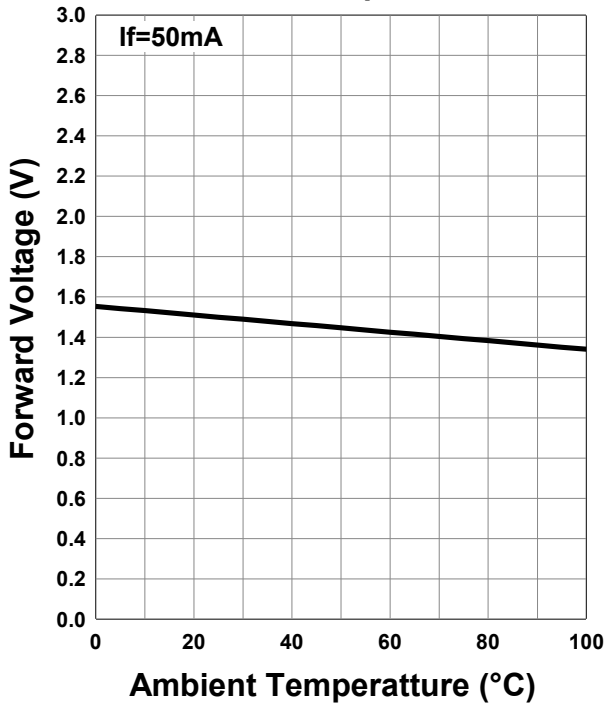
Forward Current - Pulse Duration



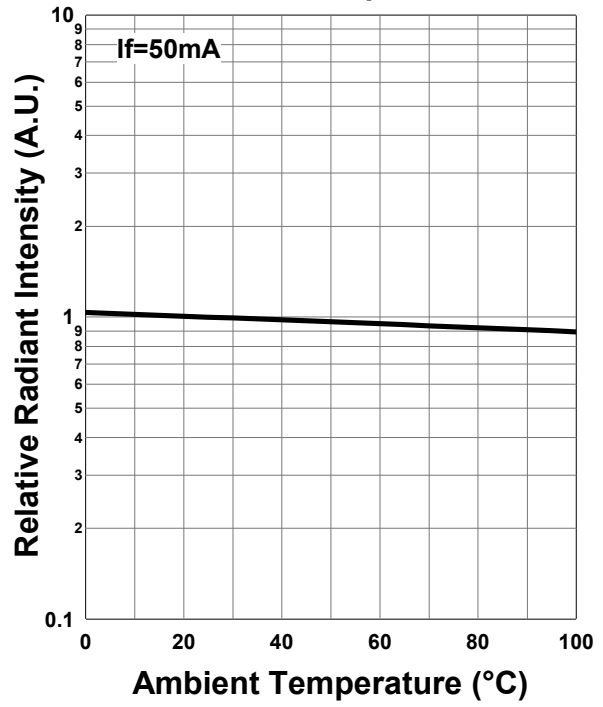
Allowable Forward Current - Ambient Temperature



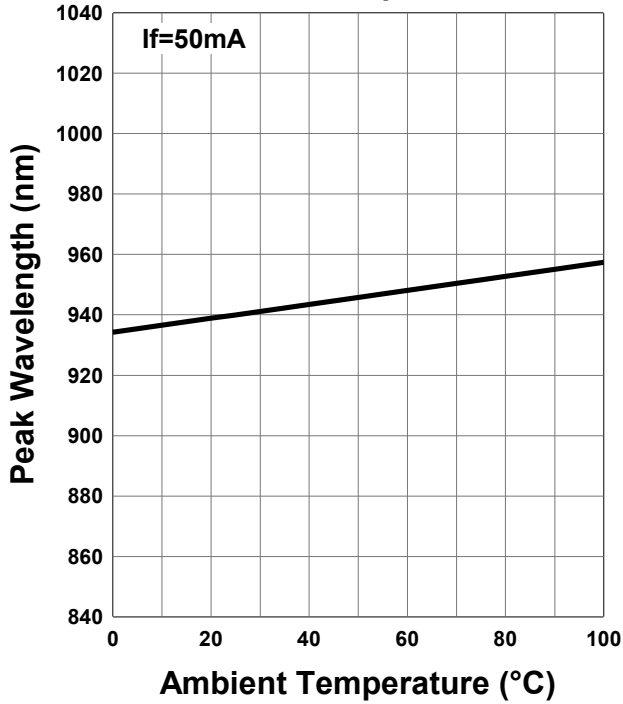
Forward Voltage - Ambient Temperature

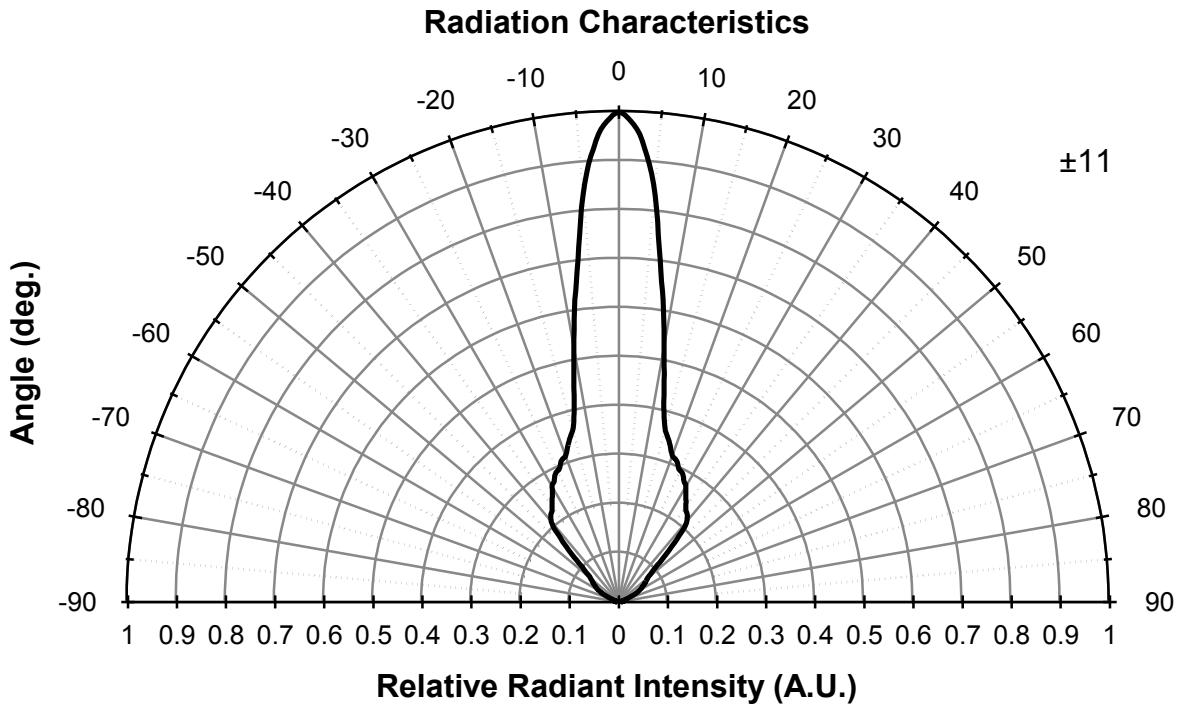
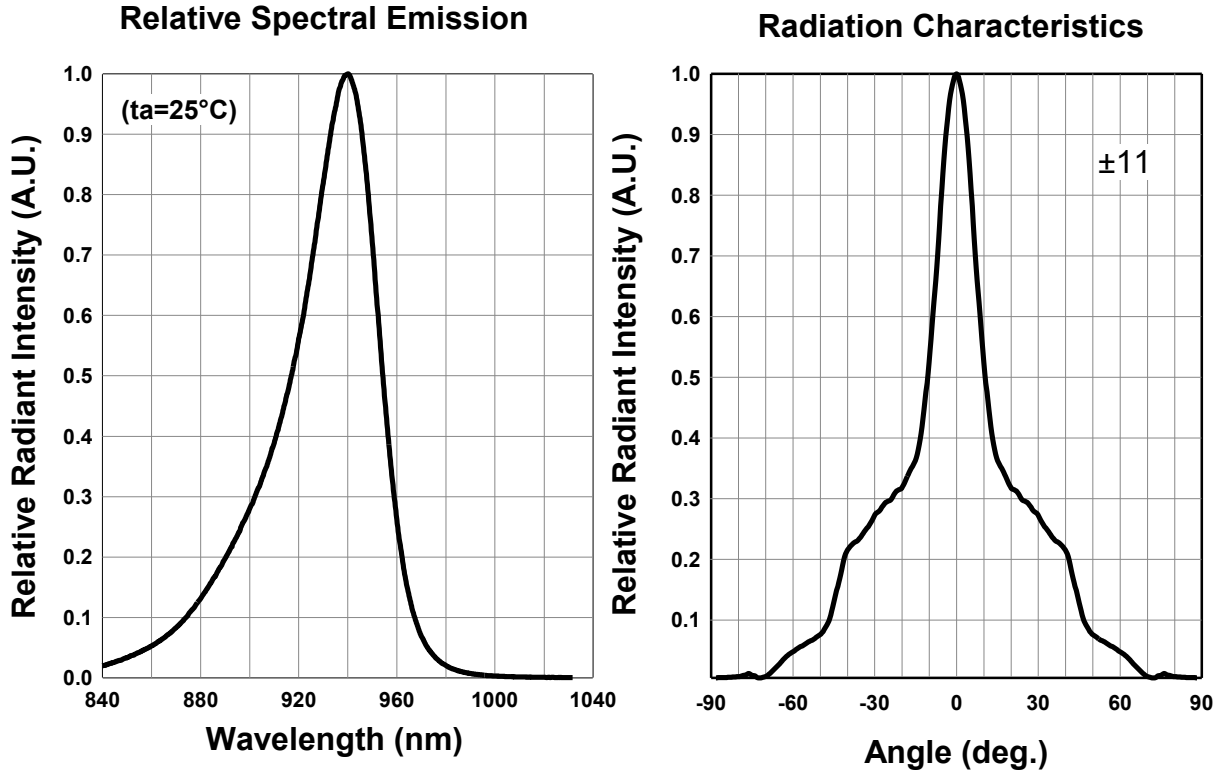


Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature





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.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.

2014.01