

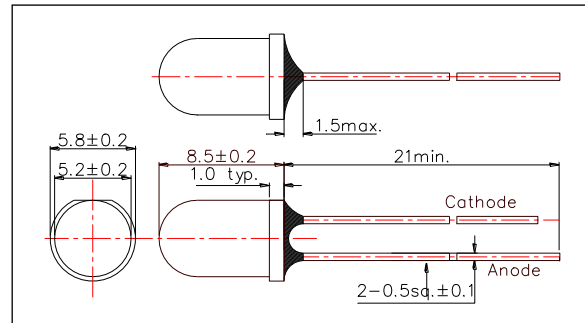
## L940-02V Infrared LED Lamp

L940-02V 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: L940-02V
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	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

\* Duty=1% and Pulse Width=10μs.

\*\* Soldering condition must be completed within 5 second at 250 °C.

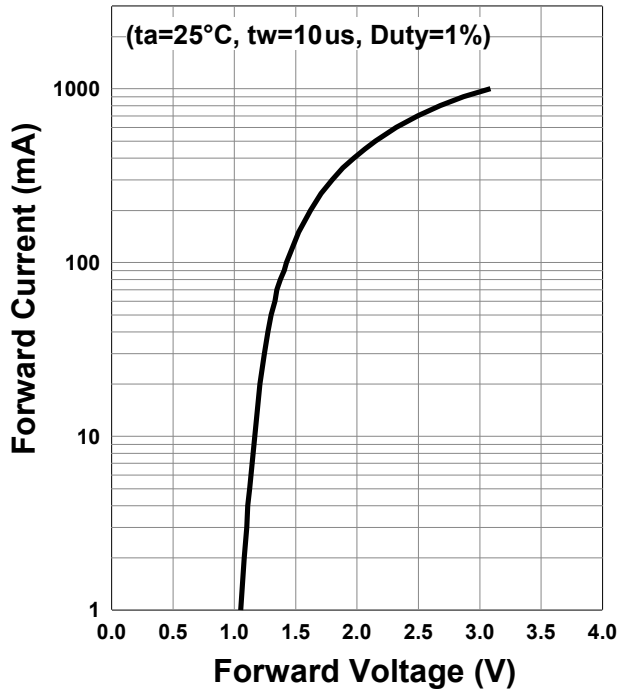
Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.3	1.5	V
	VFP	IFP=1A		3.1		
Radiated Power*	PO	IF=50mA		16		mW
		IFP=1A		270		
Radiant Intensity**	IE	IF=50mA		135		mW/sr
		IFP=1A		2250		
Peak Wavelength	λP	IF=50mA	930	940	950	nm
Half Width	Δλ	IF=50mA		56		nm
Viewing Half Angle	θ1/2	IF=50mA		±3		Deg.
Rise Time	tr	IF=50mA		1600		ns
Fall Time	tr	IF=50mA		1900		ns

\* Measured by S3584-08

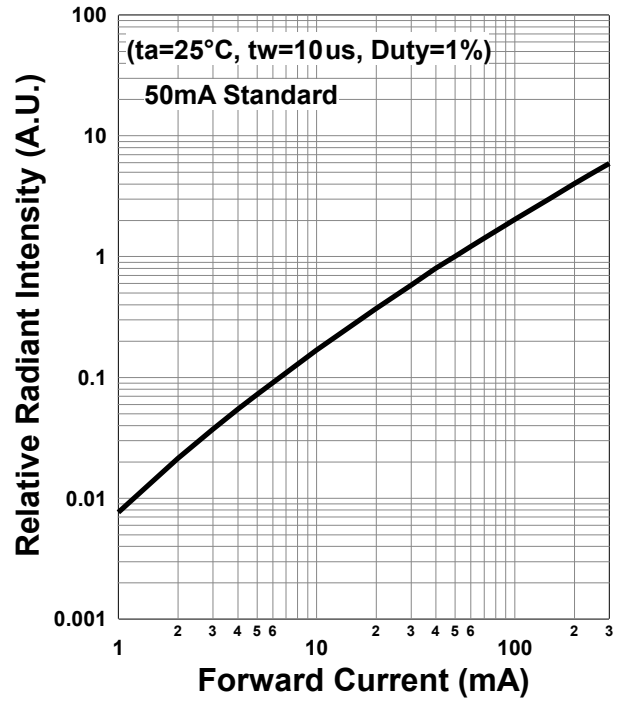
\*\* Measured by CIE127-2007 Condition B.



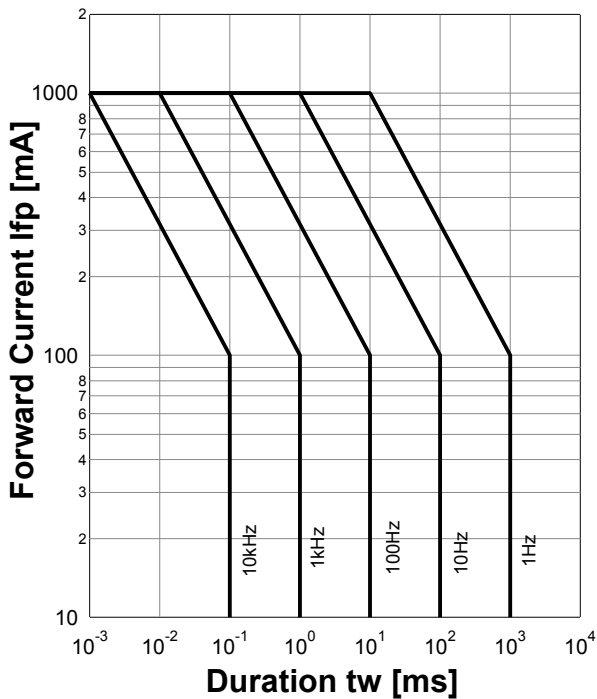
**Forward Current - Forward Voltage**



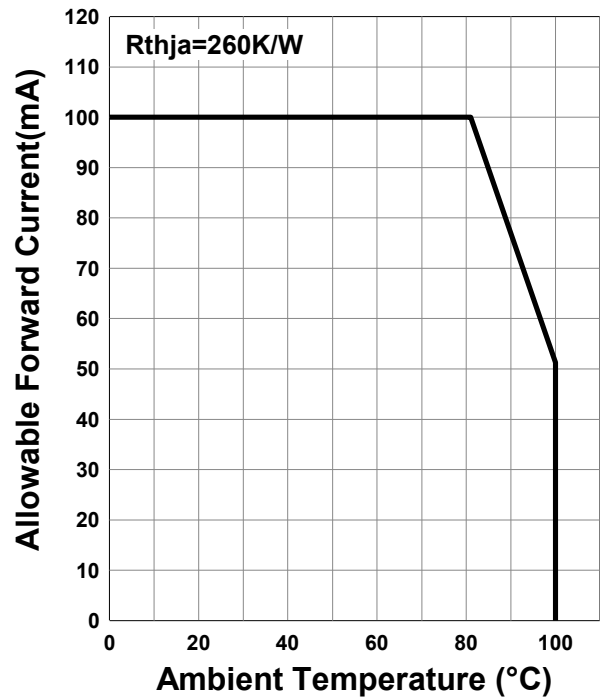
**Relative Radiant Intensity - Forward Current**



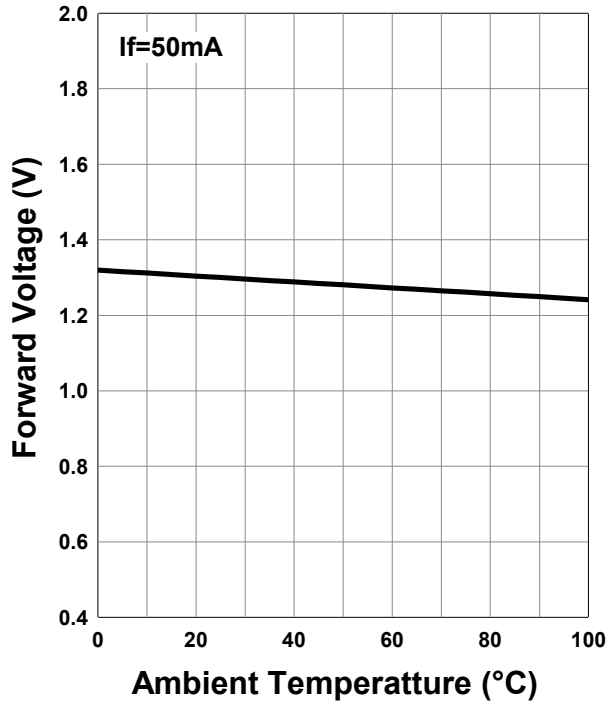
**Forward Current - Pulse Duration**



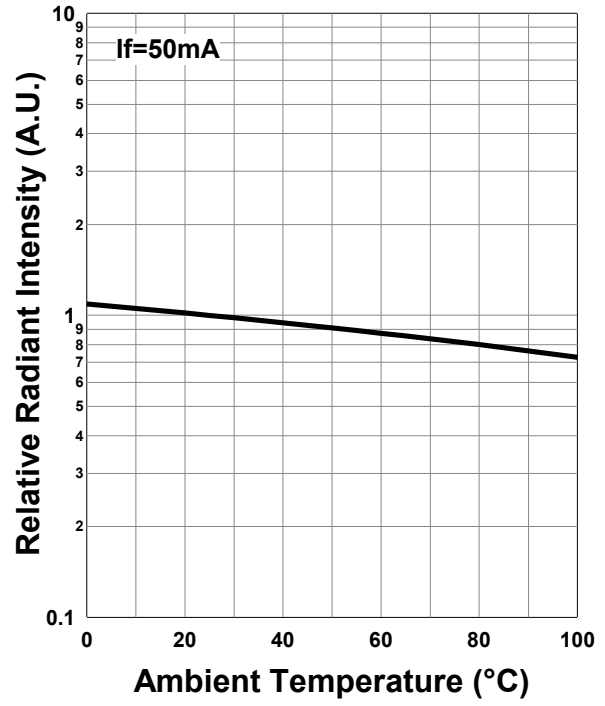
**Allowable Forward Current - Ambient Temperature**



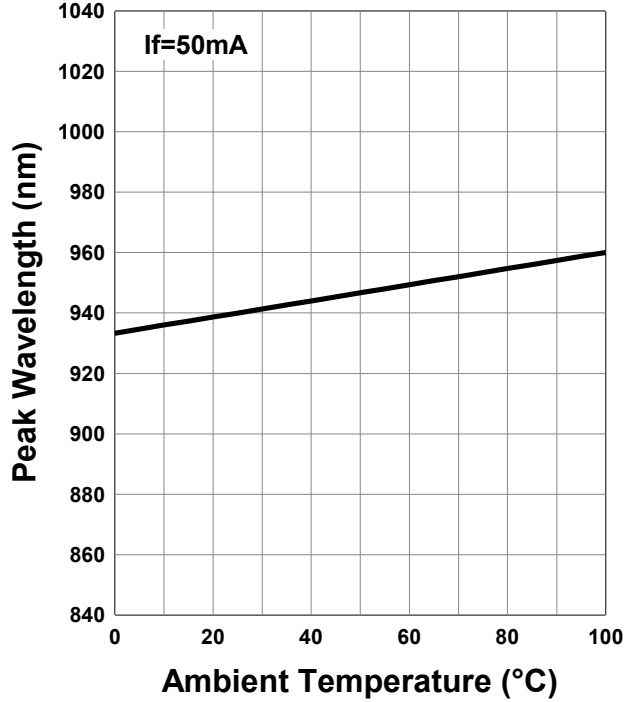
**Forward Voltage - Ambient Temperature**



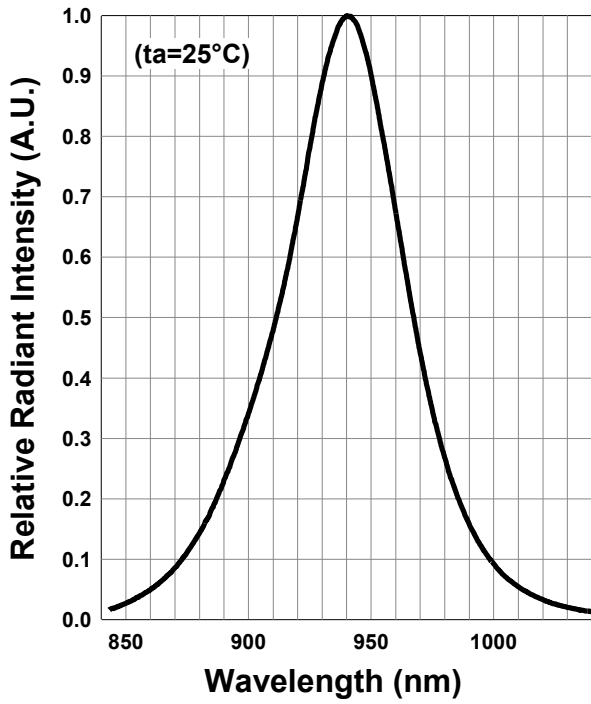
**Relative Radiant Intensity - Ambient Temperature**



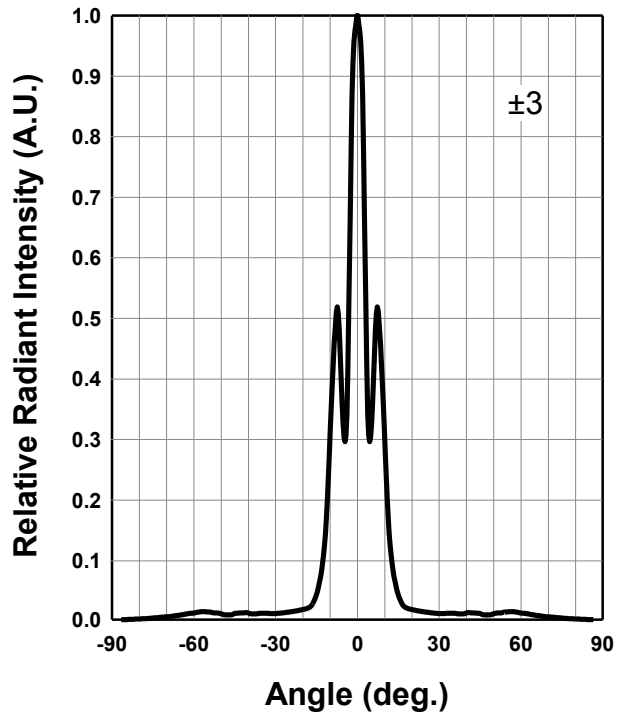
**Peak Wavelength - Ambient Temperature**



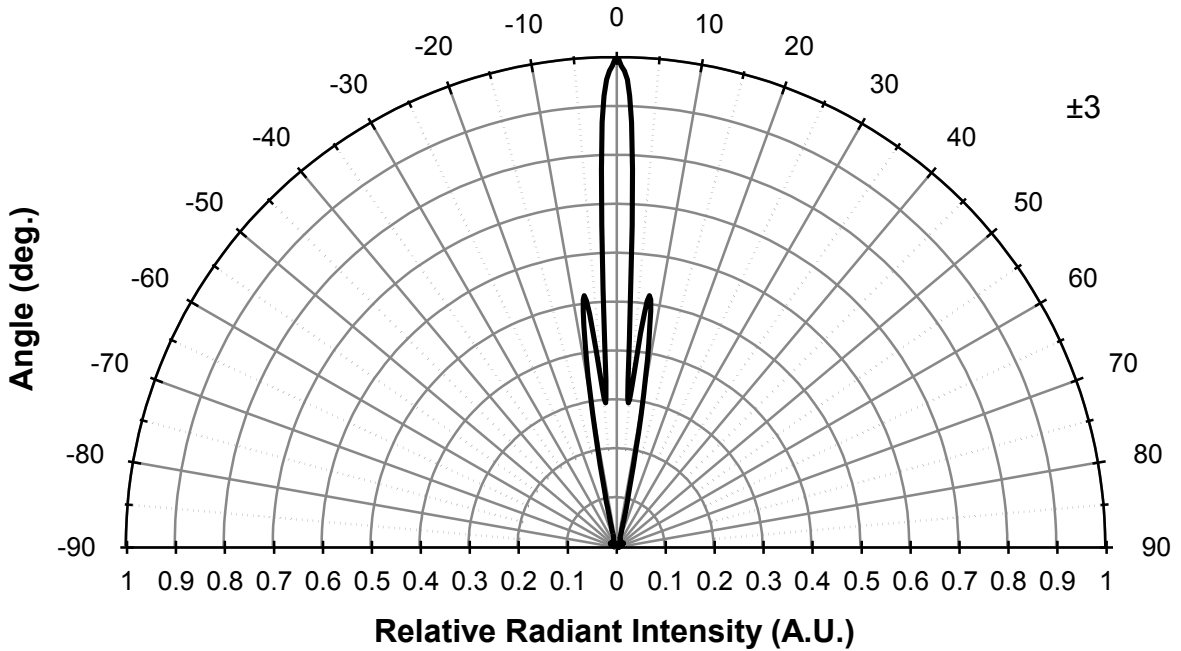
**Relative Spectral Emission**



**Radiation Characteristics**



**Radiation Characteristics**



**Disclaimer**

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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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2014.06