

L890-01AU

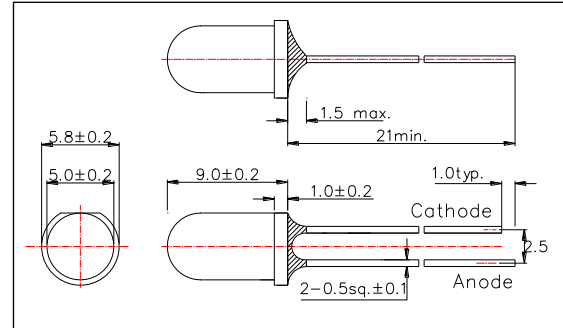
Infrared LED Lamp

L890-01AU 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 890nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L890-01AU
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 890nm 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	180	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	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	250	°C

* Duty=1% and Pulse Width=10μs.

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

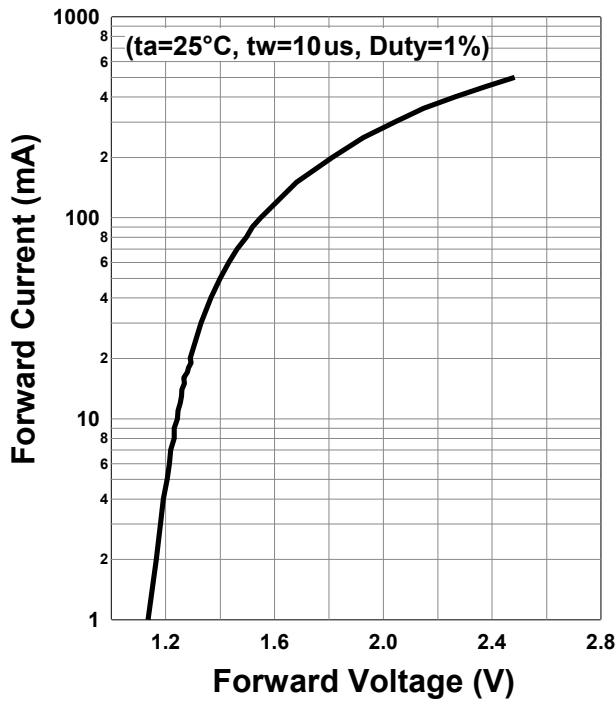
Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.4	1.8	V
		IF=100mA		1.6		
		T=20ms				
	VFP	IFP=500mA		2.5		
Radiated Power*	PO	IF=50mA		15		mW
		IF=100mA		30		
		T=20ms				
		IFP=500mA		140		
Radiant Intensity**	IE	IF=50mA		65		mW/sr
		IFP=500mA		600		
Peak Wavelength	λP	IF=50mA	880	890	900	nm
Half Width	Δλ	IF=50mA		49		nm
Viewing Half Angle	θ1/2	IF=50mA		± 12		Deg.
Rise Time	tr	IF=50mA		700		ns
Fall Time	tr	IF=50mA		800		ns

* Measured by S3584-08

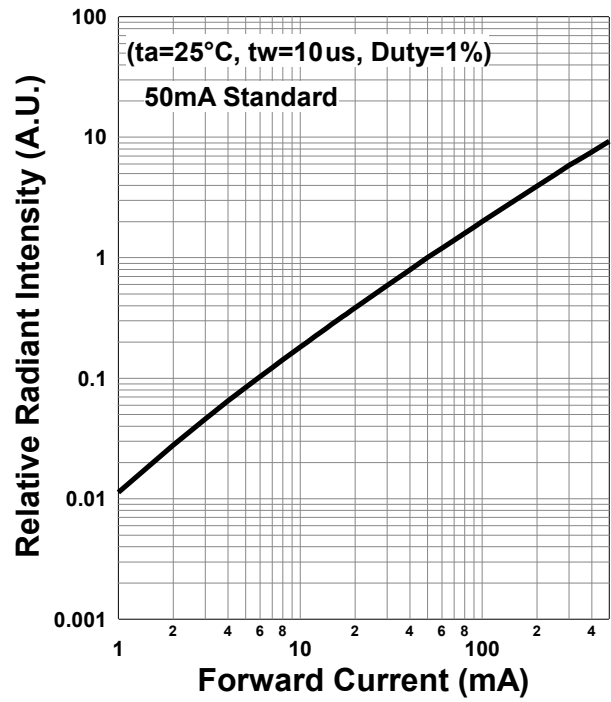
** Measured by CIE127-2007 Condition B.



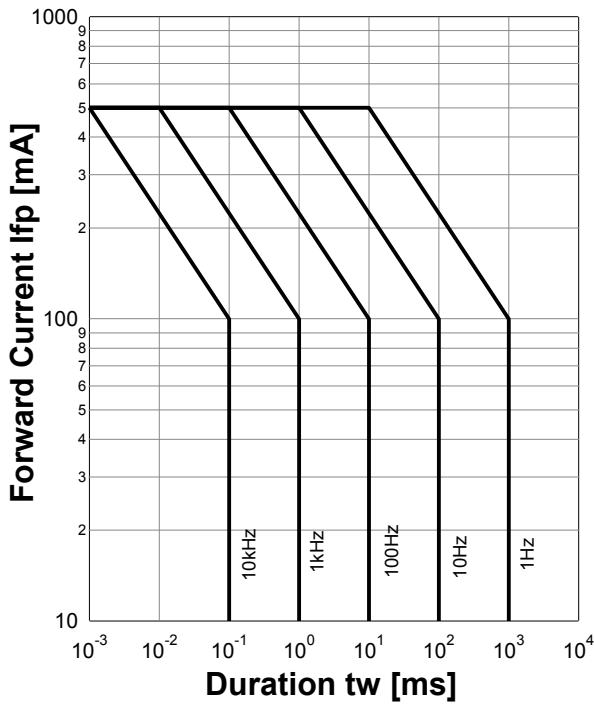
Forward Current - Forward Voltage



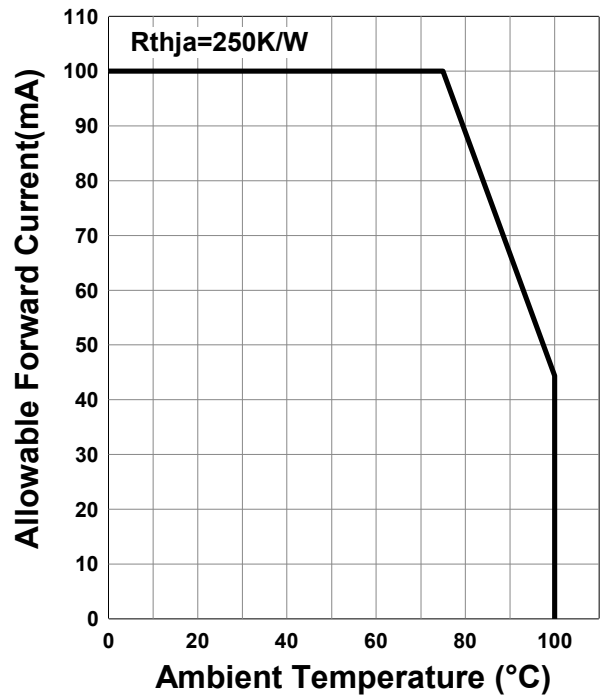
Relative Radiant Intensity - Forward Current

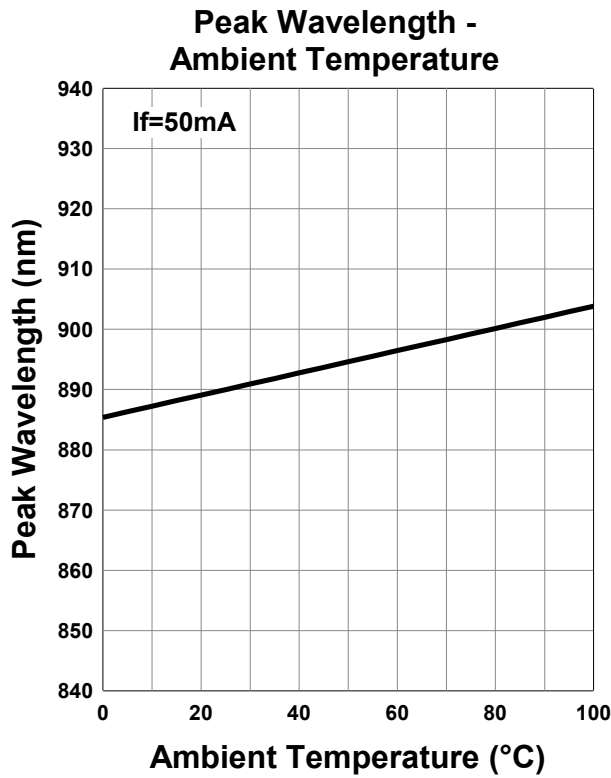
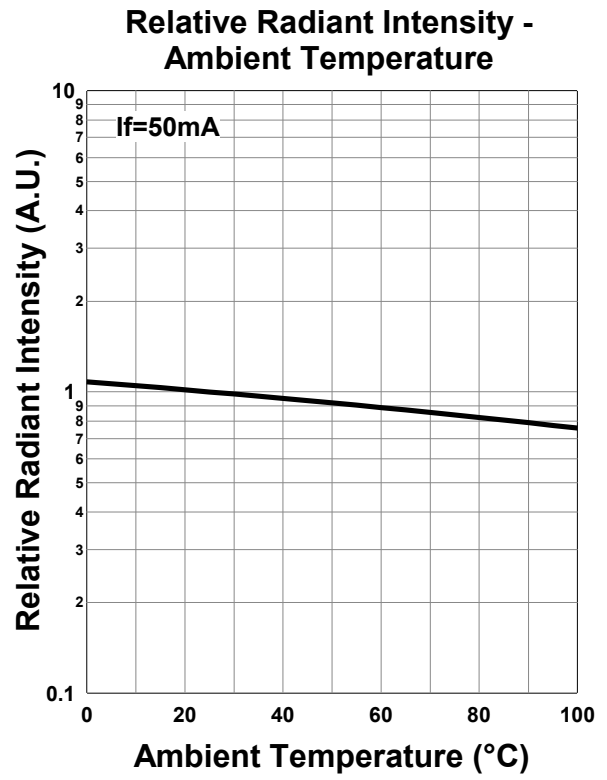
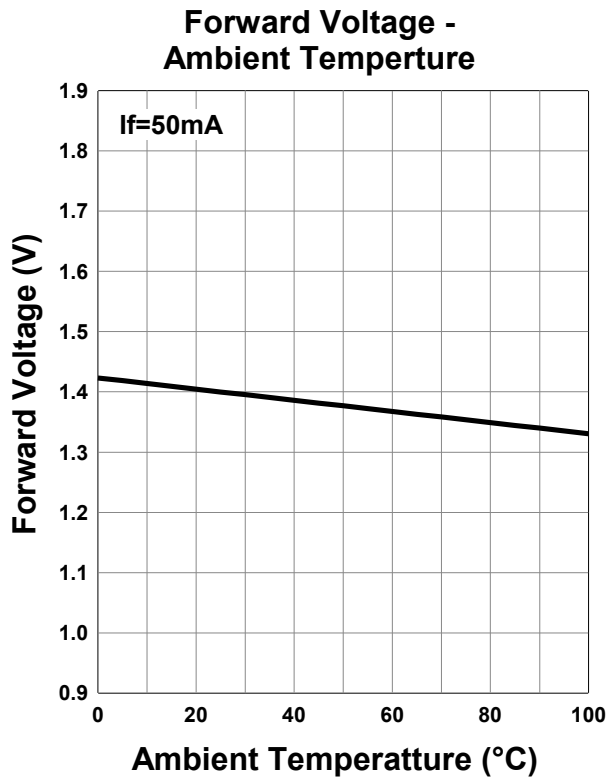


Forward Current - Pulse Duration

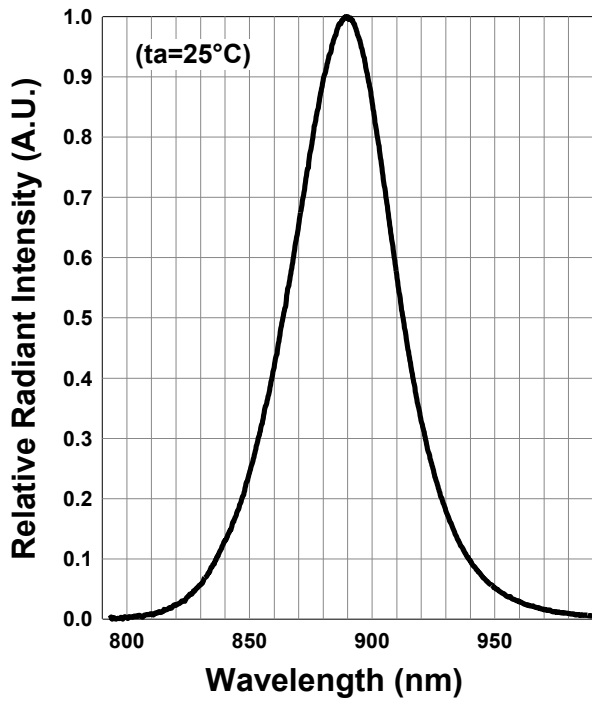


Allowable Forward Current - Ambient Temperature

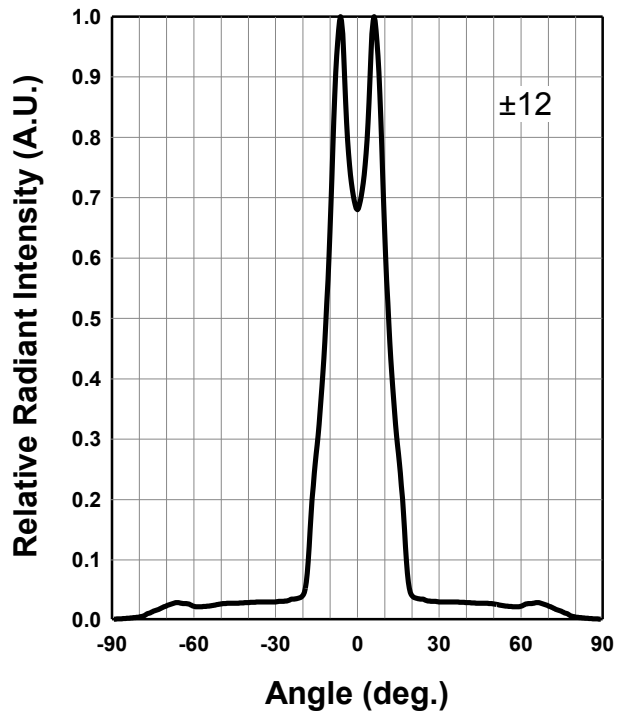




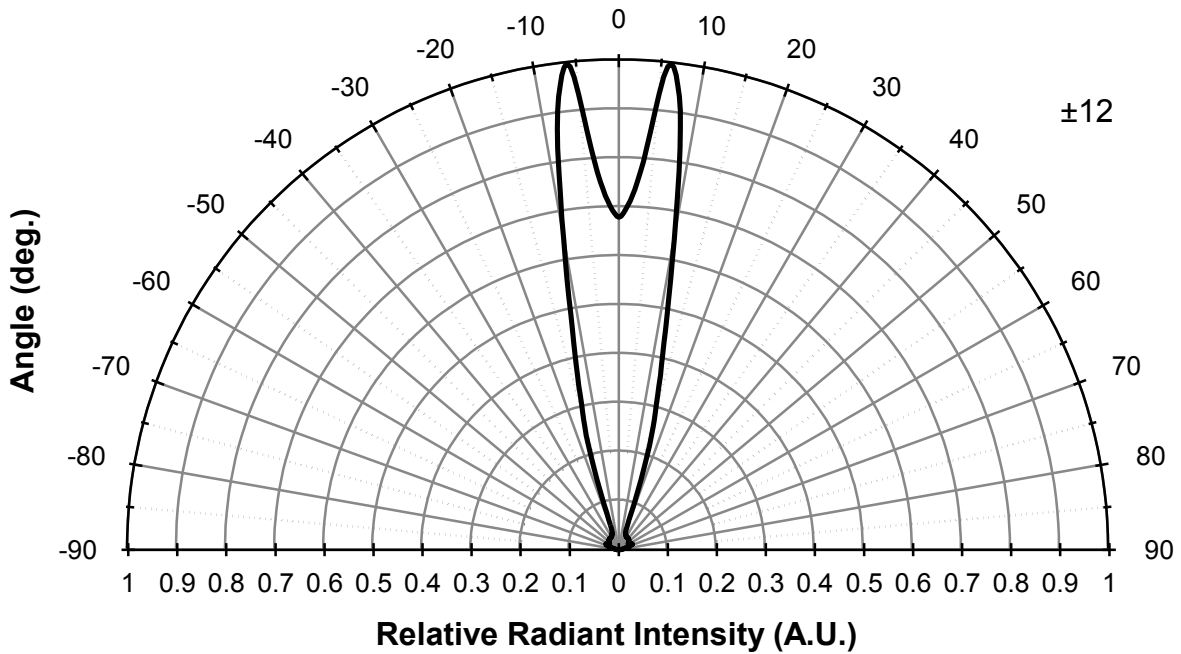
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

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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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