L810-01AU

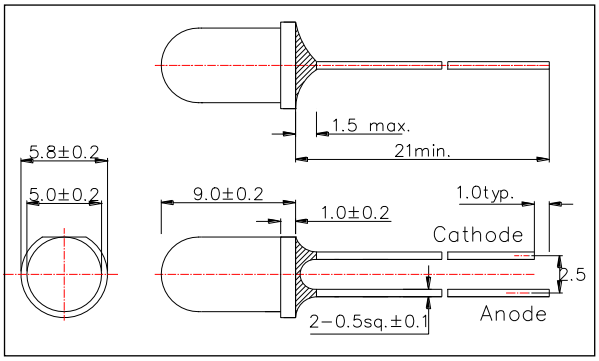
Infrared LED Lamp

L810-01AU is an AlGaAs LED mounted on a lead frame with a clear epoxy lens.
On forward bias, it emits a spectral band of radiation that peaks at 810nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L810-01AU
3. Chip:
   - Chip material: AlGaAs
   - Peak Wavelength: 810nm 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℃]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	200	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	120	℃
Thermal Resistance	Rthjp	250	K/W
Operating Temperature	TOPR	-40 ~ +100	℃
Storage Temperature	TSTG	-40 ~ +100	℃
Soldering Temperature**	TSOL	250	℃

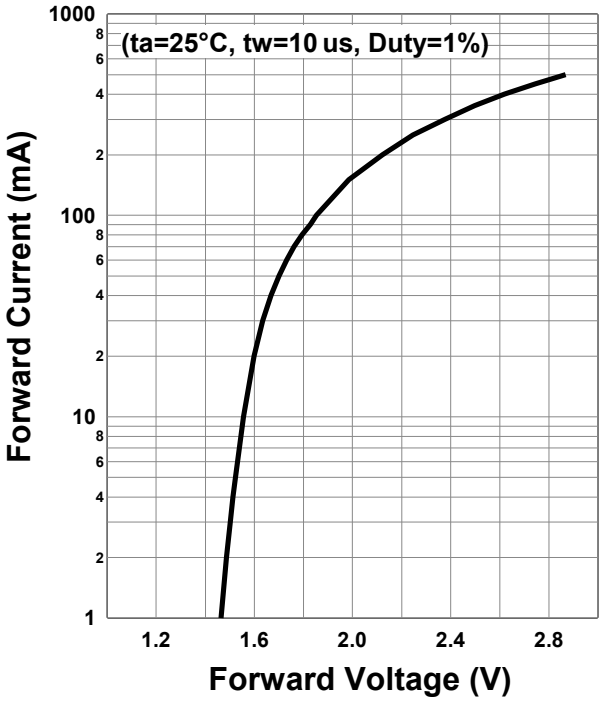
* Duty=1% and Pulse Width=10us.
** Soldering condition must be completed within 5 second at 250 ℃.

Electro-Optical Characteristics [Ta=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.7	2.0	V
	VFP	IFP=500mA		2.9		
Total Radiated Power*	PO	IF=50mA		27		mW
		IFP=500mA		260		
Radiant Intensity**	IE	IF=50mA		100		mW/sr
		IFP=500mA		970		
Peak Wavelength	λP	IF=50mA	800	810	820	nm
Half Width	Δλ	IF=50mA		29		nm
Viewing Half Angle	θ1/2	IF=50mA		±8		deg
Rise Time	tr	IF=50mA		55		ns
Fall Time	tf	IF=50mA		55		ns

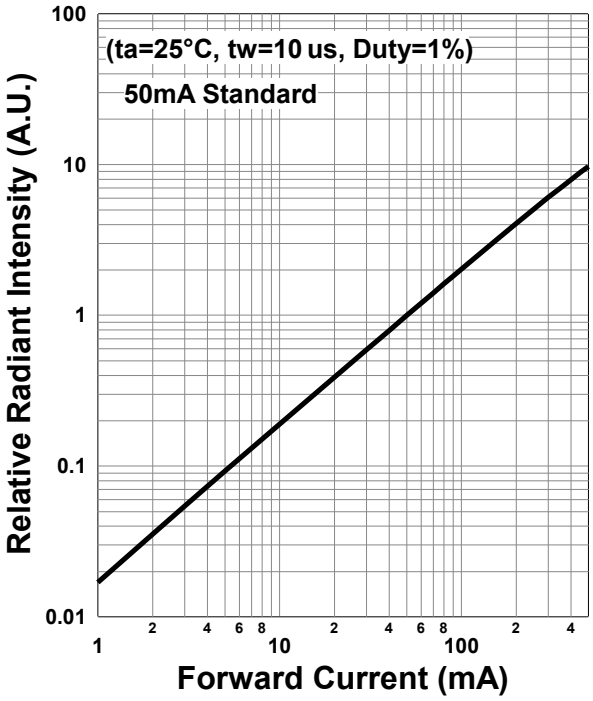
* Measured by S3584-08
** Measured by CIE127-2007 Condition B

RoHS Compliant

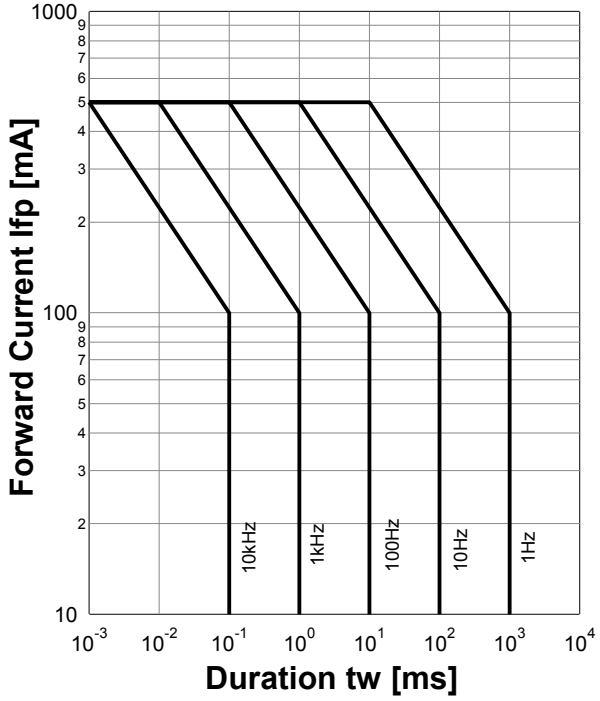
Forward Curent - Forward Voltage



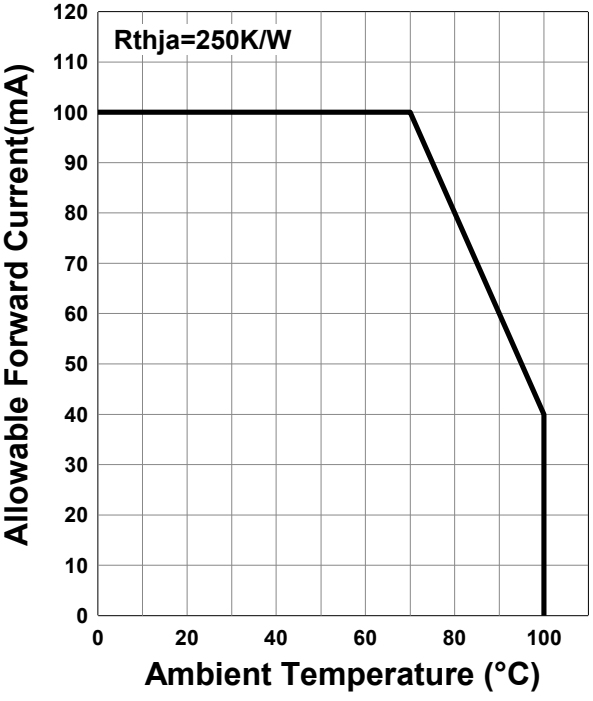
Relative Radiant Intensity - Forward Current



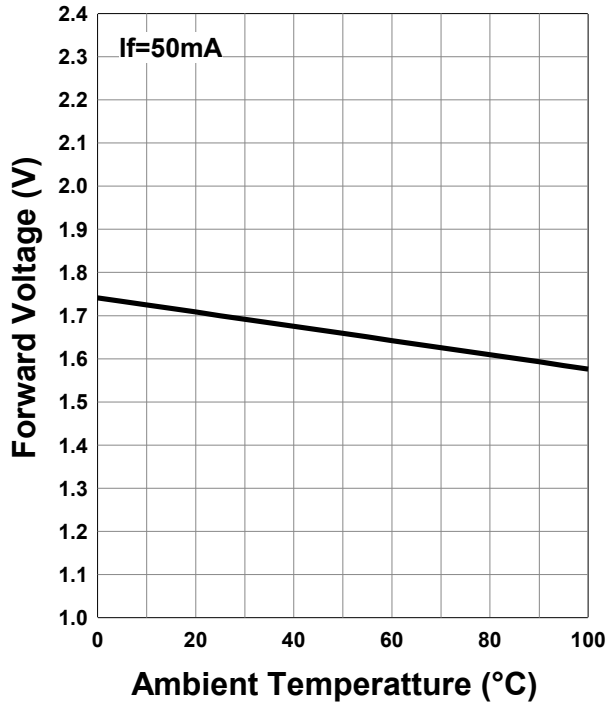
Forward Current - Pulse Duration



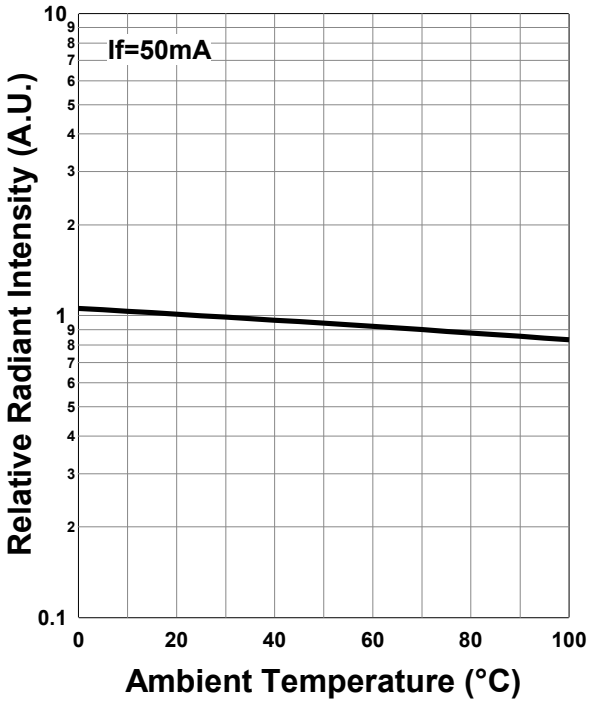
Allowable Forward Current - Ambient Temperature



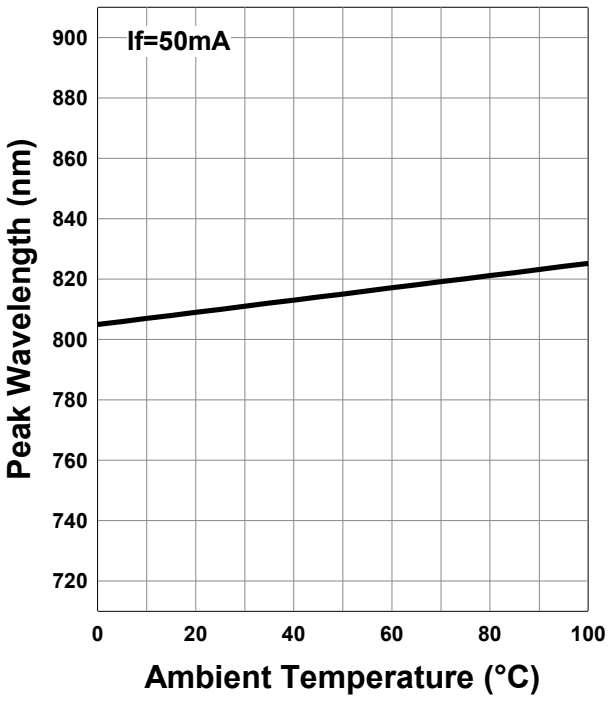
Forward Voltage - Ambient Temperture



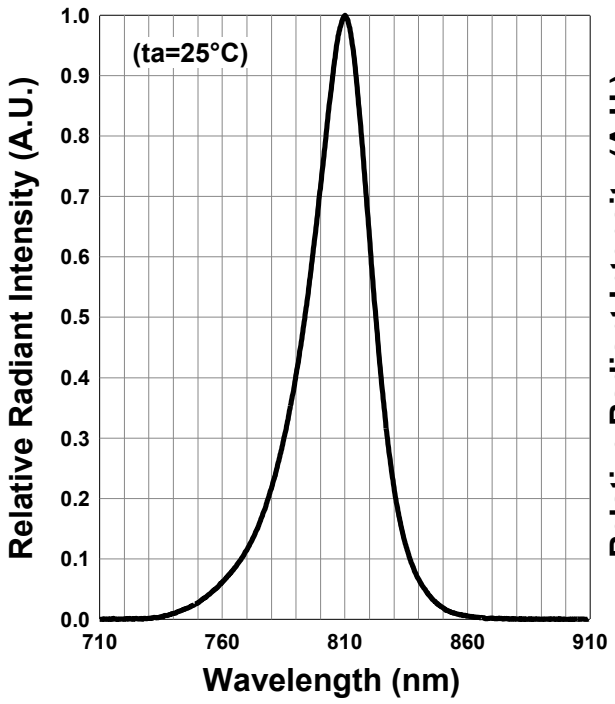
Relative Radiant Intensity - Ambient Temperature



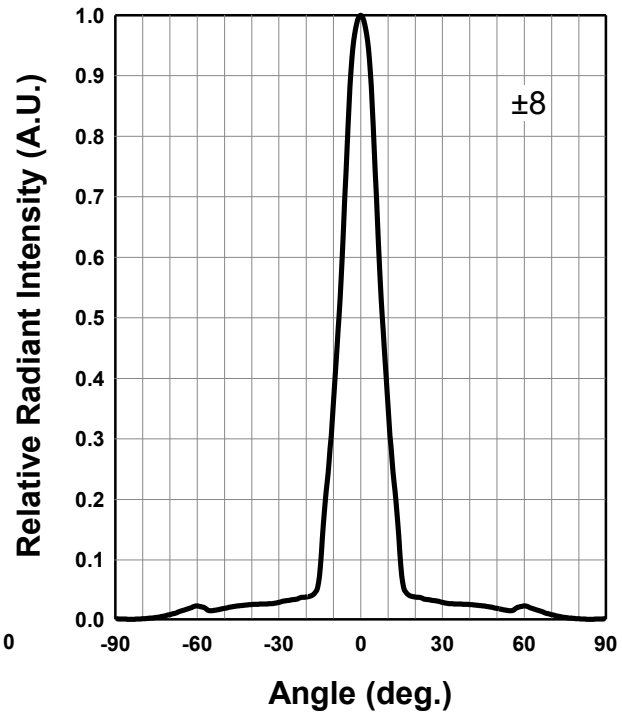
Peak Wavelength - Ambient Temperature



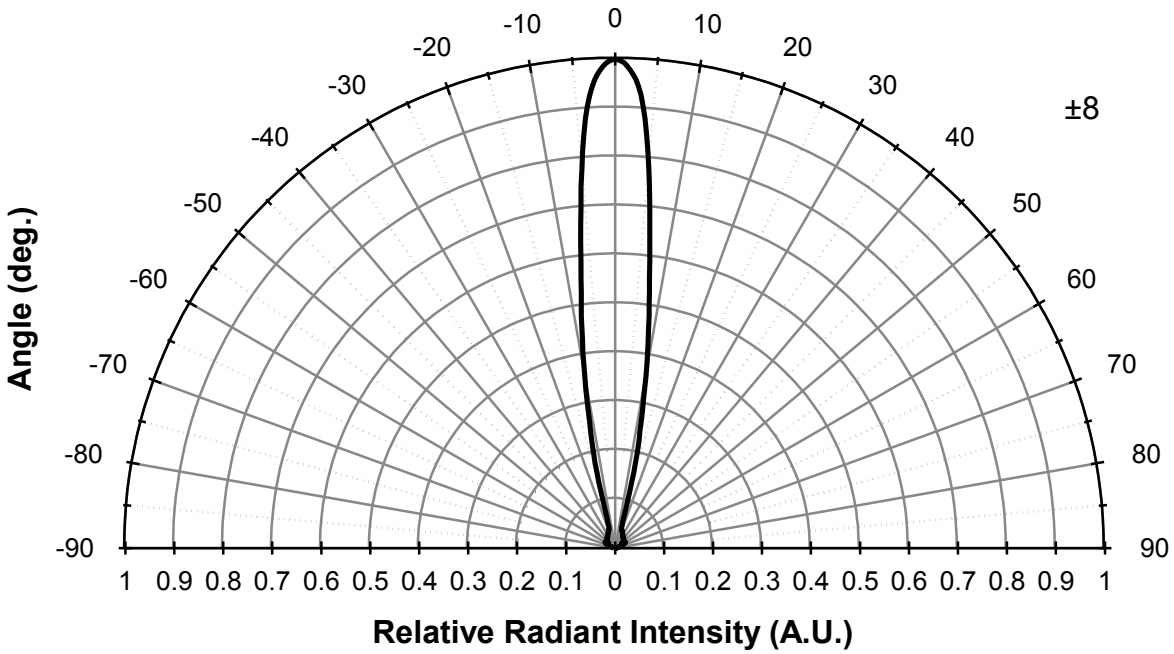
Relative Spectral Emission



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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