

L810-01AU

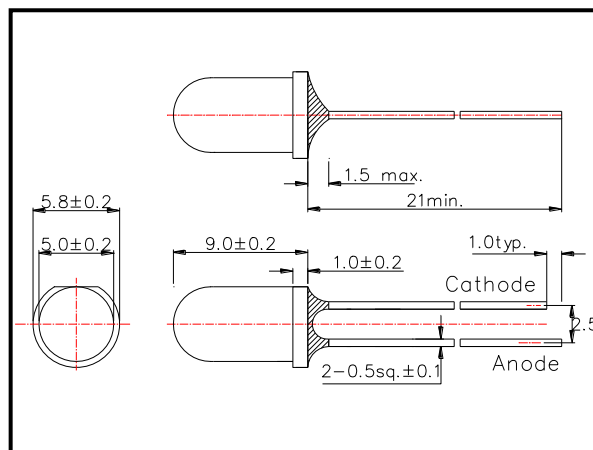
Infrared LED Lamp

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, which peaks at 810nm.

Specifications

- 1) Product Name Infrared LED Lamp
- 2) Type No. L810-01AU
- 3) Chip
- (1) Chip Material AlGaAs
- (2) Peak Wavelength 810nm typ.
- 4) Package
- (1) Type Φ 5mm clear molding
- (2) Resin Material Epoxy Resin
- (3) Lead Frame Soldered (Lead Frame)

Outer dimension (Unit: mm)



Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	P _D	200	mW
Forward Current	I _F	100	mA
Pulse Forward Current	I _{FP}	500	mA
Reverse Voltage	V _R	5	V
Thermal Resistance	R _{thja}	250	K/W
Junction Temperature	T _j	120	°C
Operating Temperature	T _{OPR}	-40 ~ +100	°C
Storage Temperature	T _{STG}	-40 ~ +100	°C
Soldering Temperature	T _{SOL}	250	°C

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C

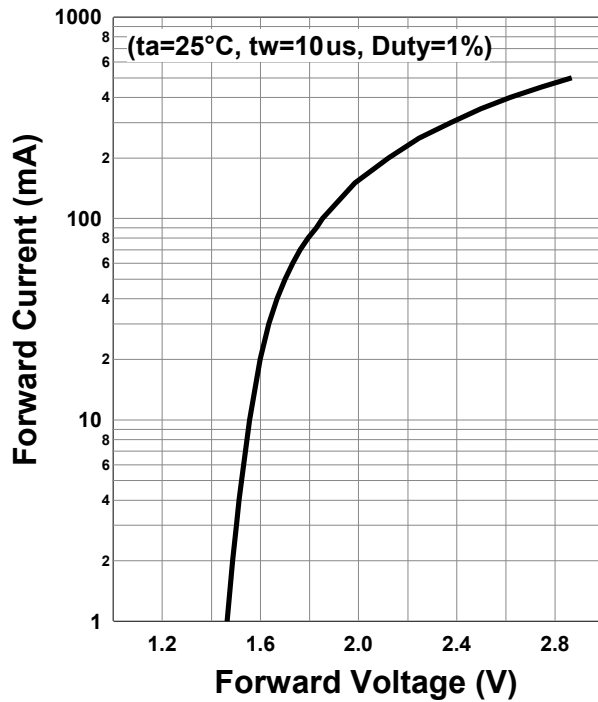
Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.7	2.0	V
	V _{FP}	I _{FP} =500mA		2.9		
Radiated Power	P _O	I _F =50mA		27		mW
		I _{FP} =500mA		260		
Radiant Intensity	I _E	I _F =50mA		100		mW/sr
		I _{FP} =500mA		970		
Peak Wavelength	λ _P	I _F =50mA	800	810	820	nm
Half Width	Δλ	I _F =50mA		29		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±8		deg.
Rise Time	t _r	I _F =50mA		35		ns
Fall Time	t _f	I _F =50mA		30		ns

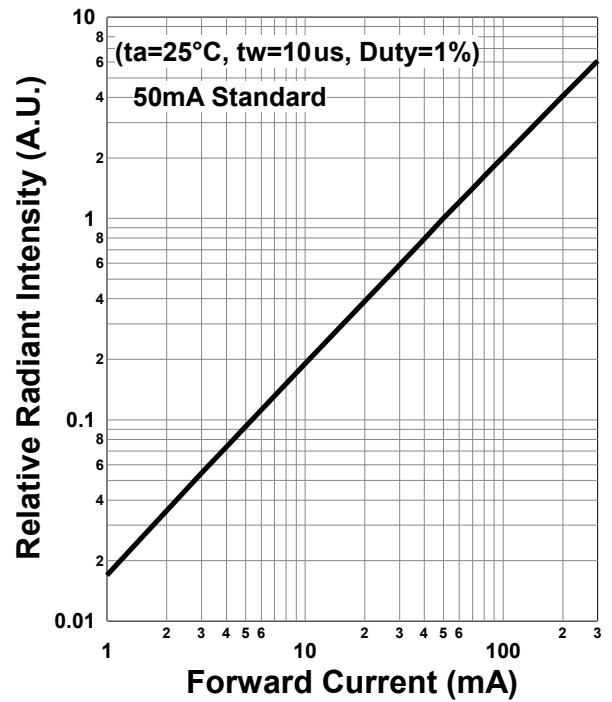
‡Radiated Power is measured by S.3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

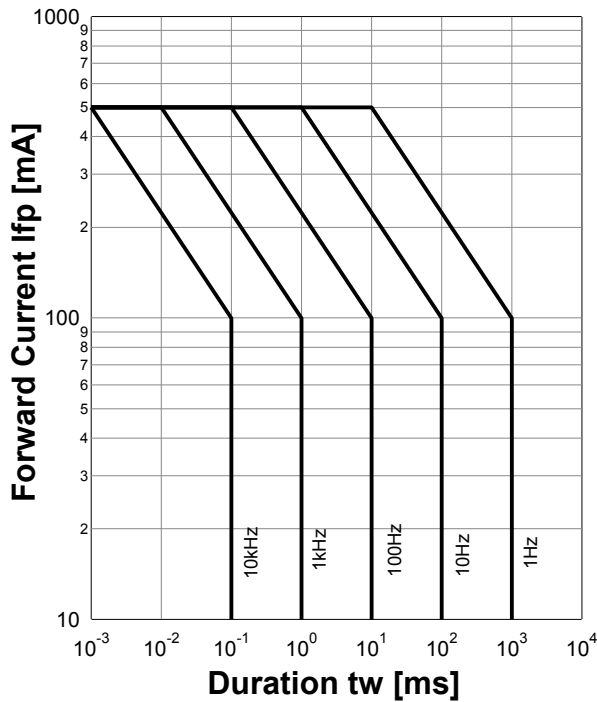
Forward Current - Forward Voltage



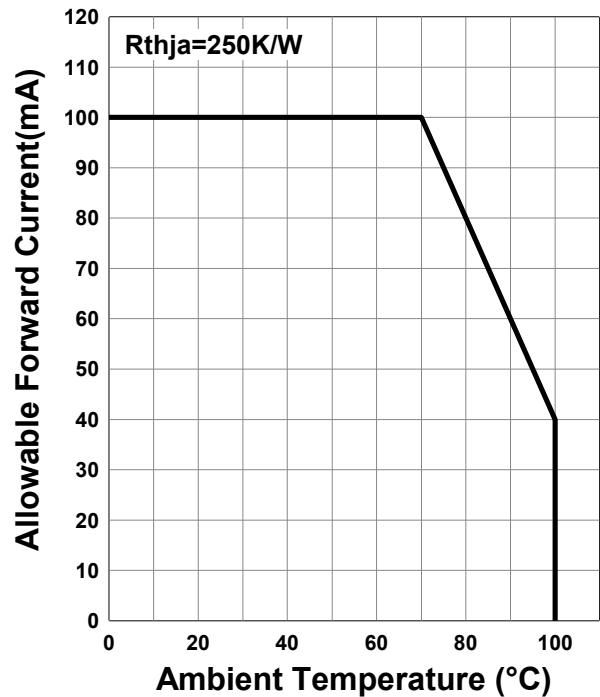
Relative Radiant Intensity - Forward Current

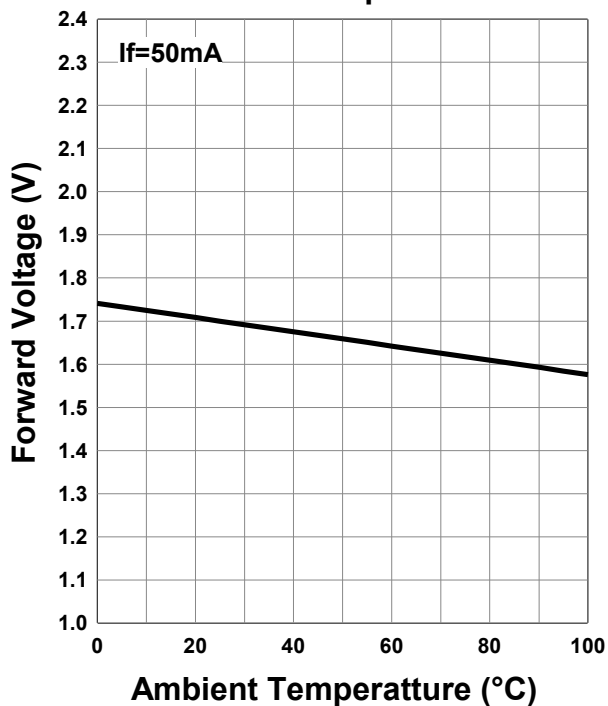
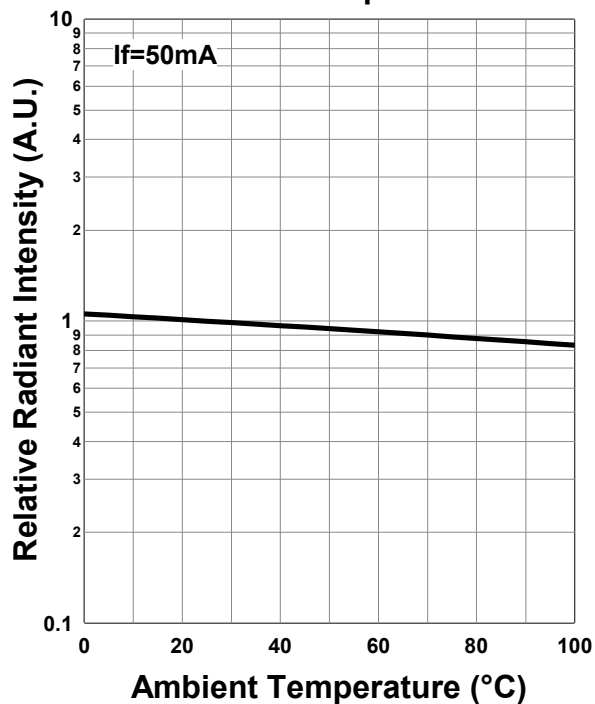
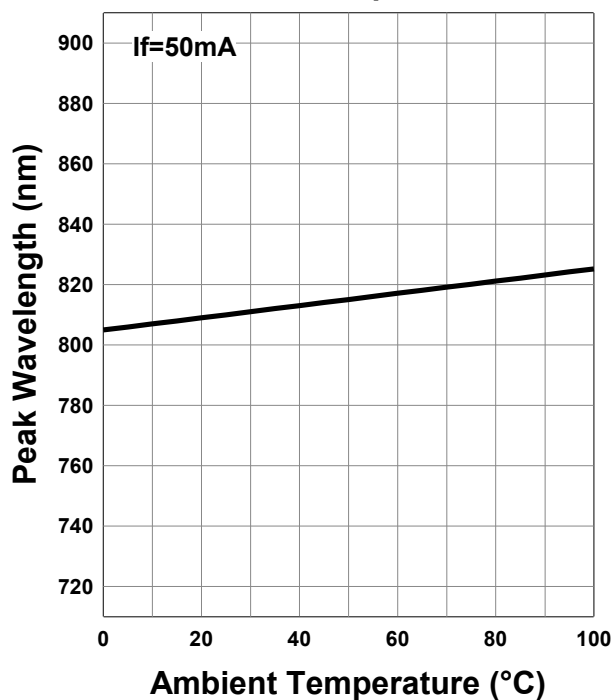


Forward Current - Pulse Duration

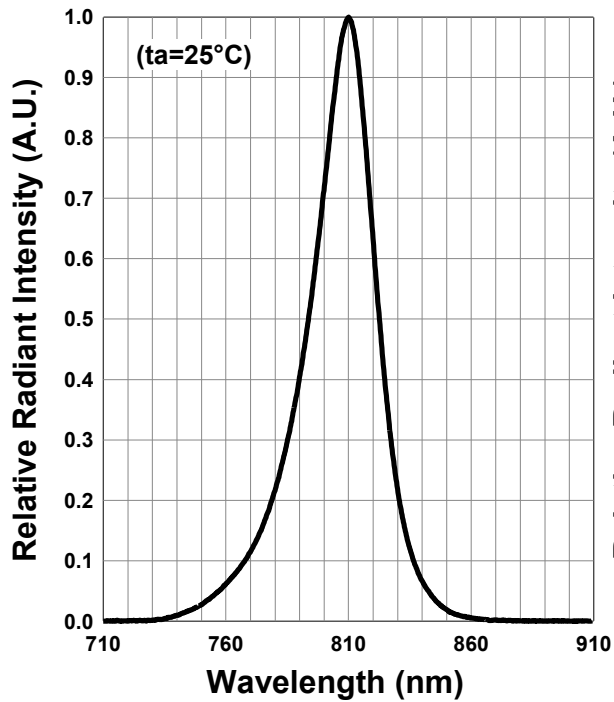


Allowable Forward Current - Ambient Temperature

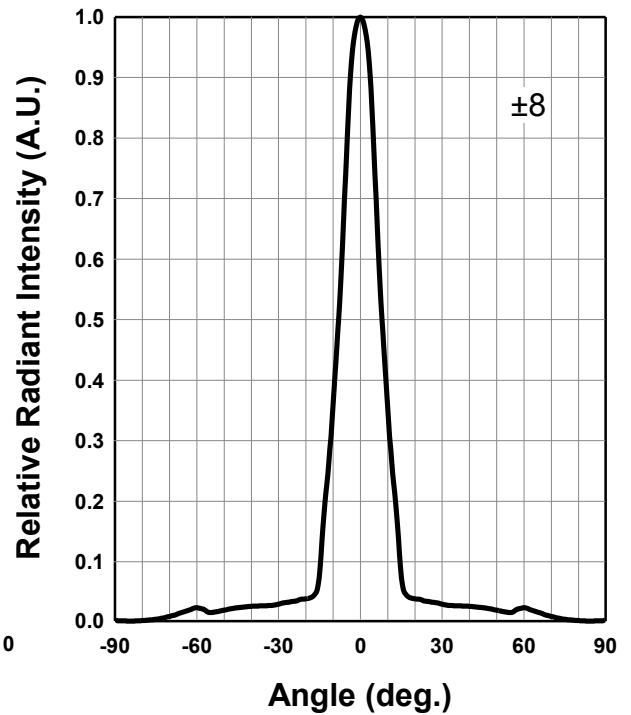


**Forward Voltage -
Ambient Temperature**

**Relative Radiant Intensity -
Ambient Temperature**

**Peak Wavelength -
Ambient Temperature**


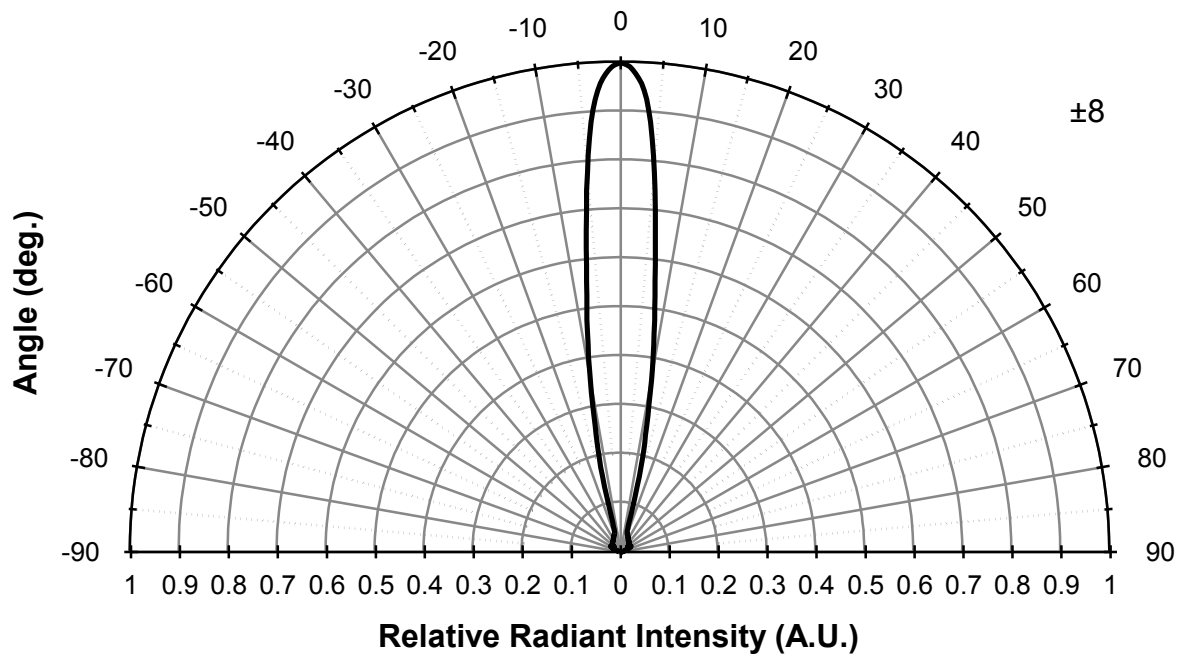
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

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