Lead (Pb) Free Product – RoHS Compliant

L810-06AU

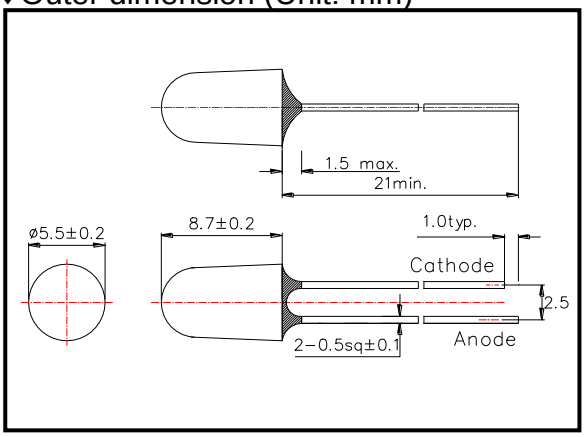
Infrared LED Lamp

L810-06AU 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.	L810-06AU
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	810nm typ.
4) Package	
(1) Type	Φ5mm clear molding
(2) Resin Material	Epoxy Resin
(3) Lead Frame	Soldered (Lead Free)

♦Outer dimension (Unit: mm)



♦Absolute Maximum Ratings [Ta=25°C]

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
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

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

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

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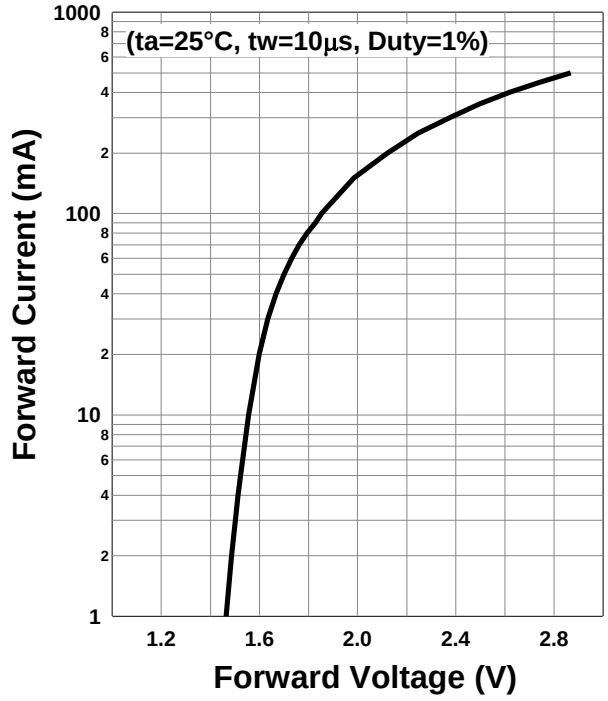
♦Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.7	2.0	V
	VFP	IFP=500mA		2.9		
Radiated Power	PO	IF=50mA		27		mW
		IFP=500mA		260		
Radiant Intensity	IE	IF=50mA		255		mW/sr
		IFP=500mA		2450		
Peak Wavelength	λP	IF=50mA	800	810	820	nm
Half Width	Δλ	IF=50mA		29		nm
Viewing Half Angle	θ 1/2	IF=50mA		±8		deg.
Rise Time	tr	IF=50mA		55		ns
Fall Time	tf	IF=50mA		55		ns

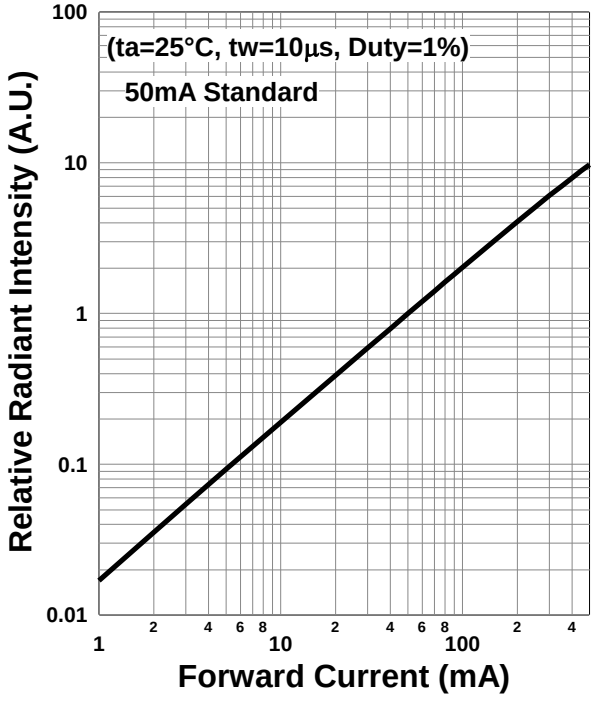
‡Radiated Power is measured by S3584-08.

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

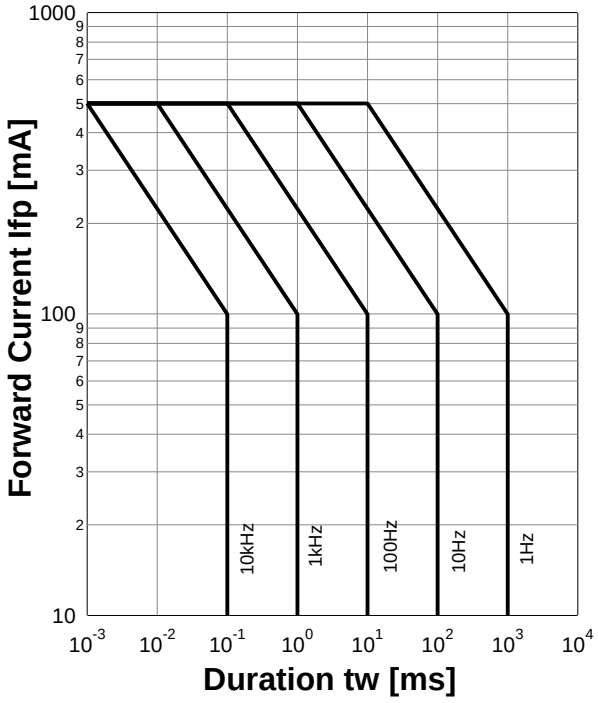
Forward Curent - Forward Voltage



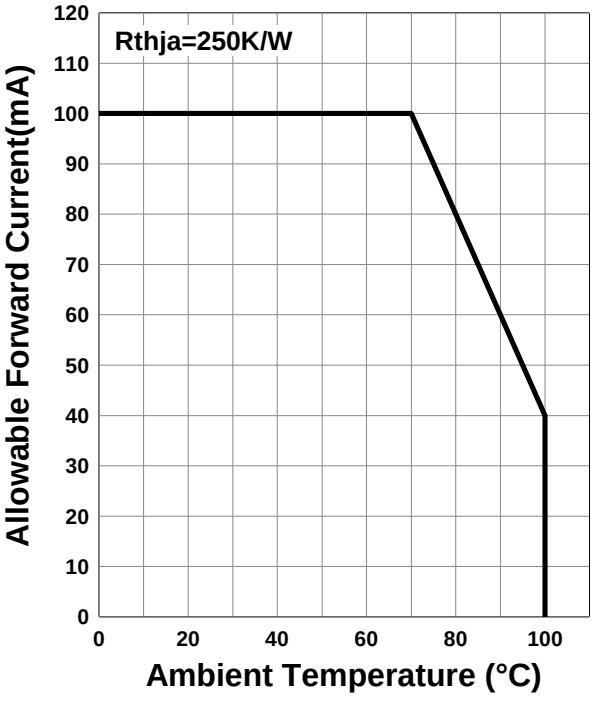
Relative Radiant Intensity - Forward Current



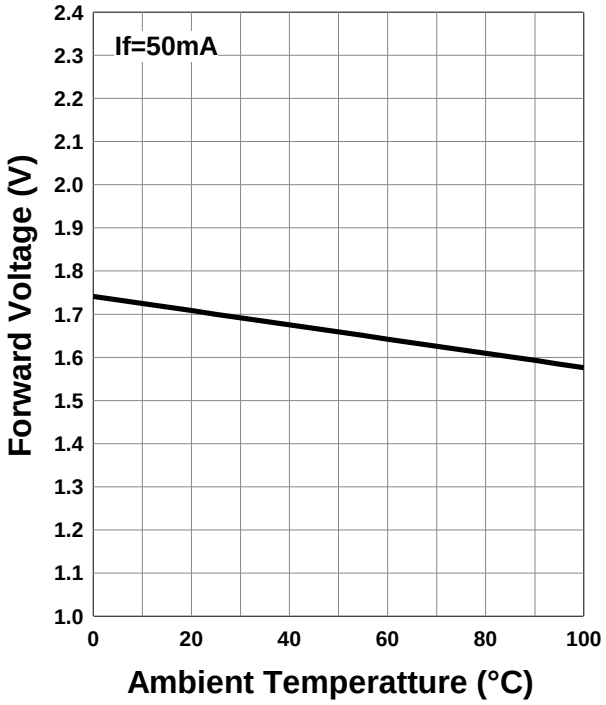
Forward Current - Pulse Duration



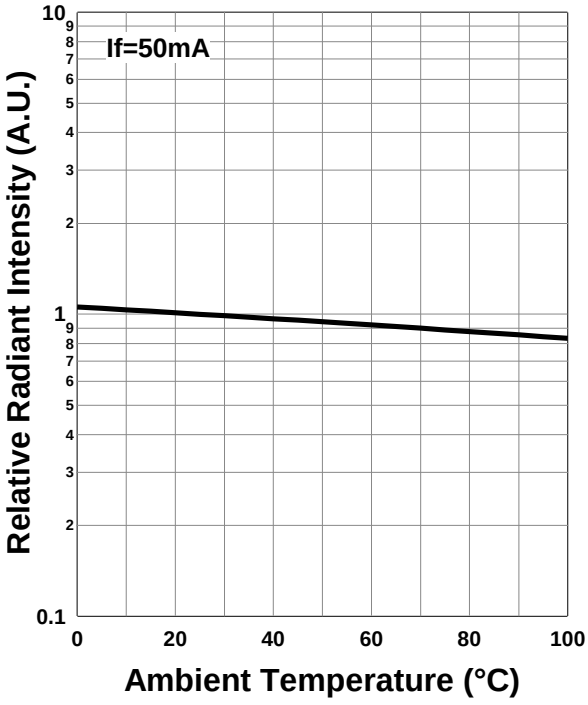
Allowable Forward Current - Ambient Temperature



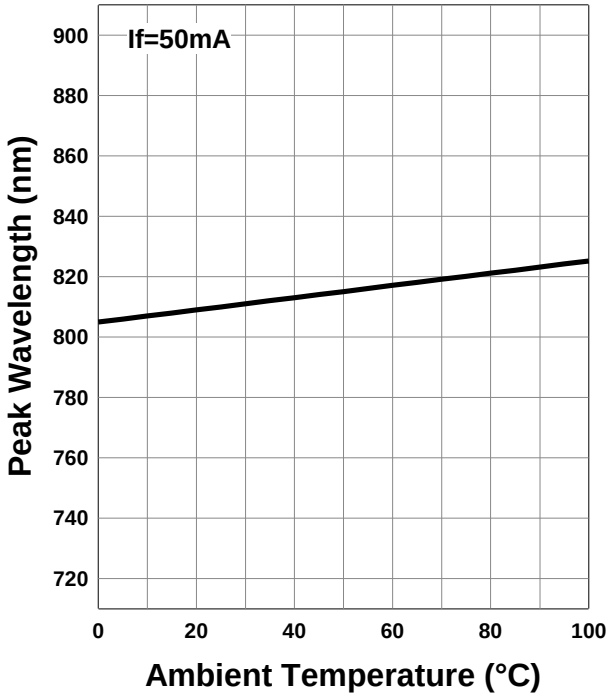
Forward Voltage - Ambient Temperture



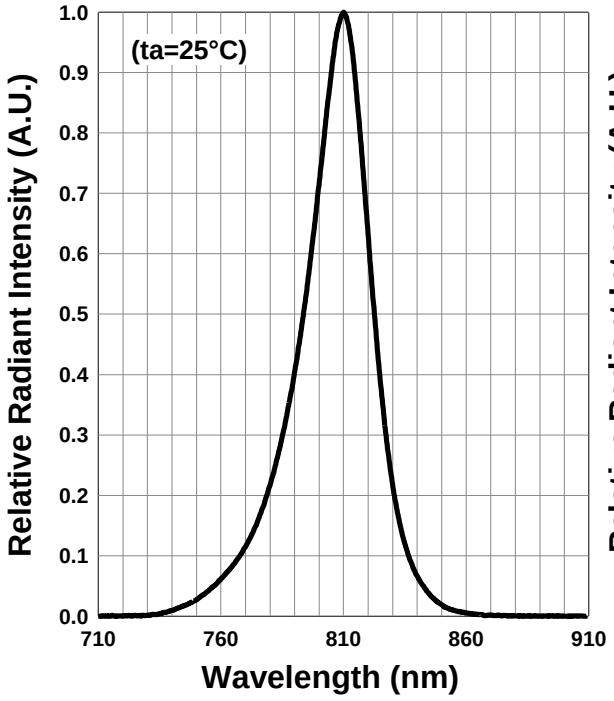
Relative Radiant Intensity - Ambient Temperature



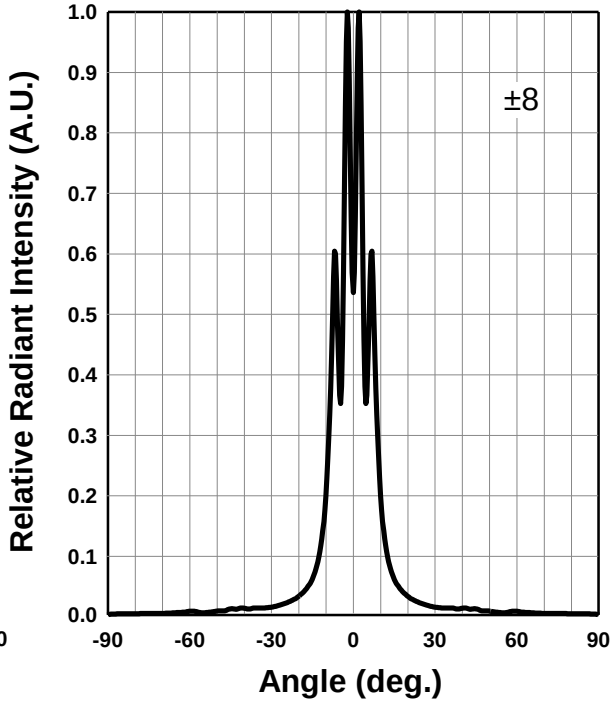
Peak Wavelength - Ambient Temperature



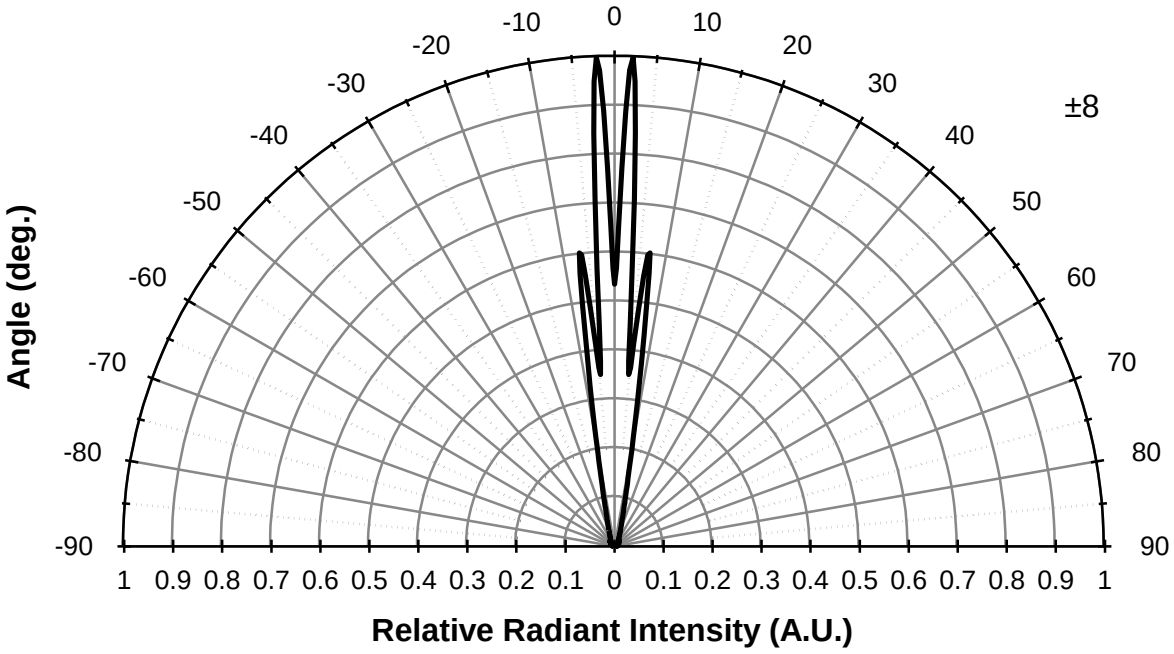
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



The product is manufactured by USHIO Inc. and the spec information is also from USHIO Inc.

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