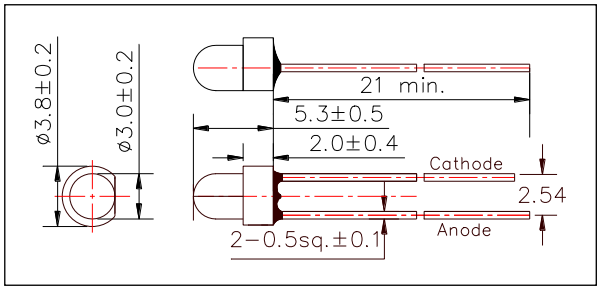
L800-36AU
Infrared LED Lamp

L800-36AU 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 800nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L800-36AU
3. Chip:
   - Chip material: AlGaAs
   - Peak Wavelength: 800nm typ.
4. Package
   - Type: Φ3mm 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
Thermal Resistance	Rthja	250	K/W
Junction Temperature	Tj	120	℃
Operating Temperature	TOPR	-40 ~ +100	℃
Storage Temperature	TSTG	-40 ~ +100	℃
Soldering Temperature**	TSOL	250	℃

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

Electro-Optical Characteristics [Ta=25℃ 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		30		mW/sr
		IFP=500mA		290		
Peak Wavelength	λP	IF=50mA	790	800	810	nm
Half Width	Δλ	IF=50mA		29		nm
Viewing Half Angle	θ1/2	IF=50mA		±28		Deg.
Rise Time	tr	IF=50mA		35		ns
Fall Time	tr	IF=50mA		30		ns

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

RoHS Compliant

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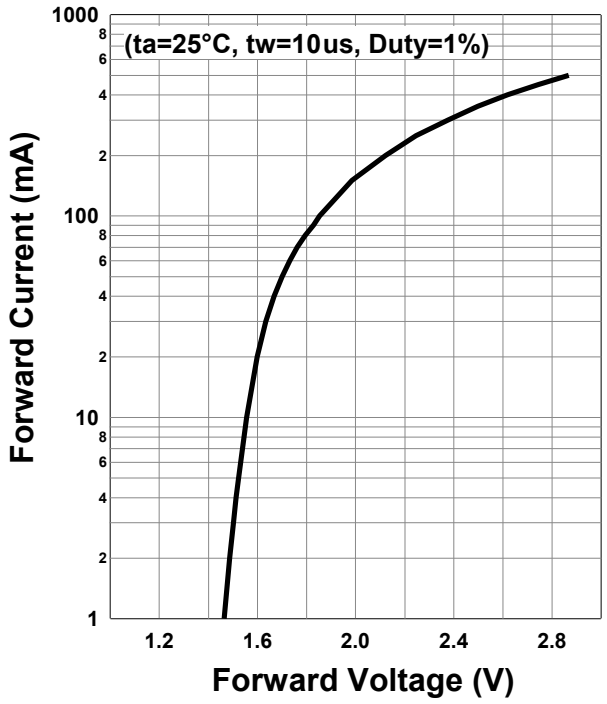
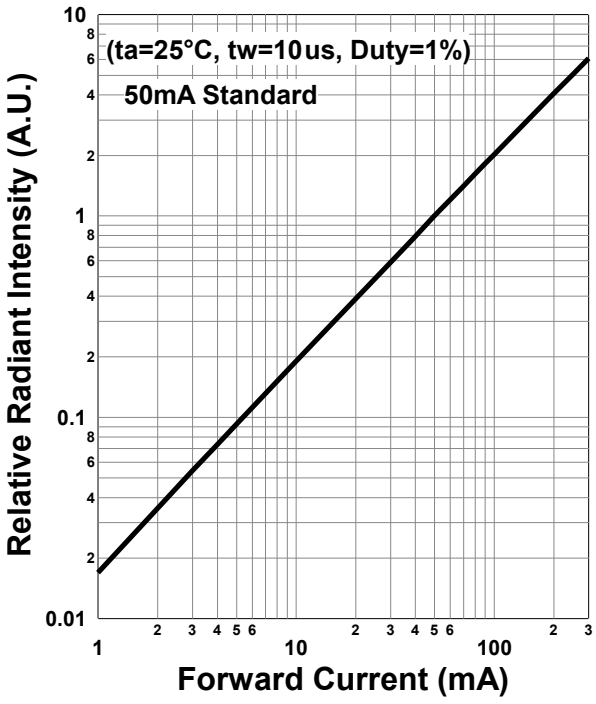
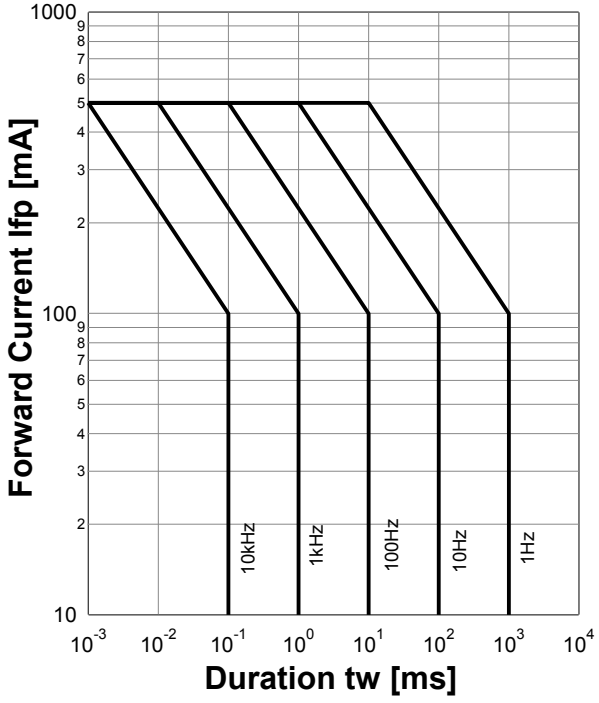
Forward Curent - Forward Voltage



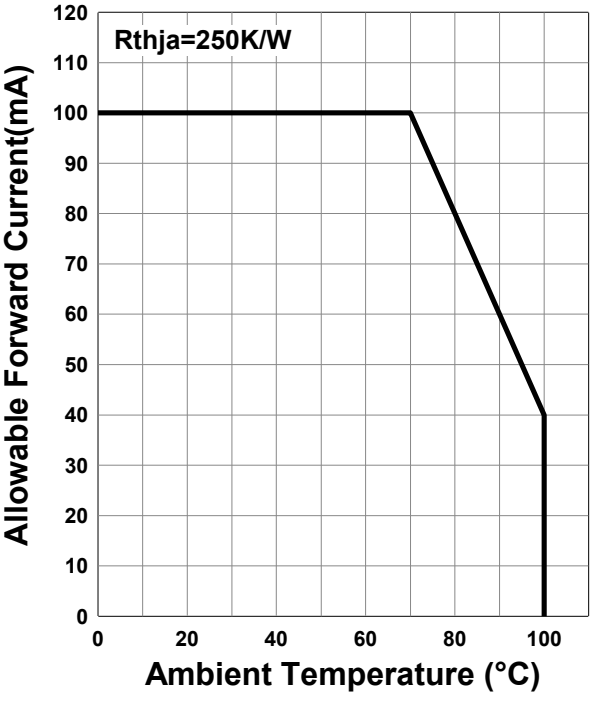
Relative Radiant Intensity - Forward Current

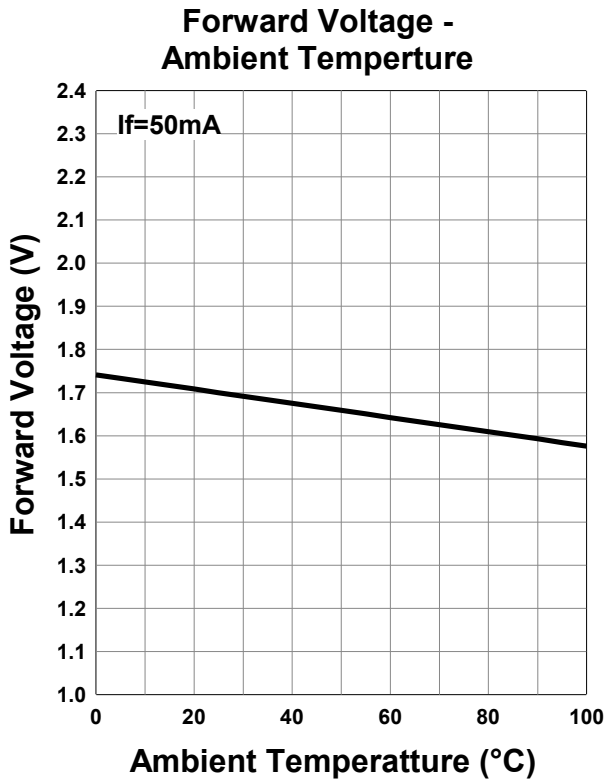


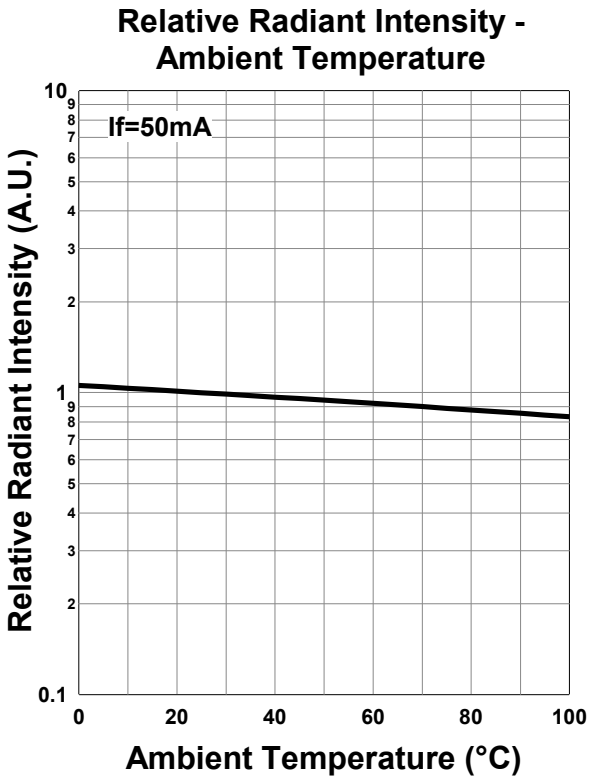
Forward Current - Pulse Duration

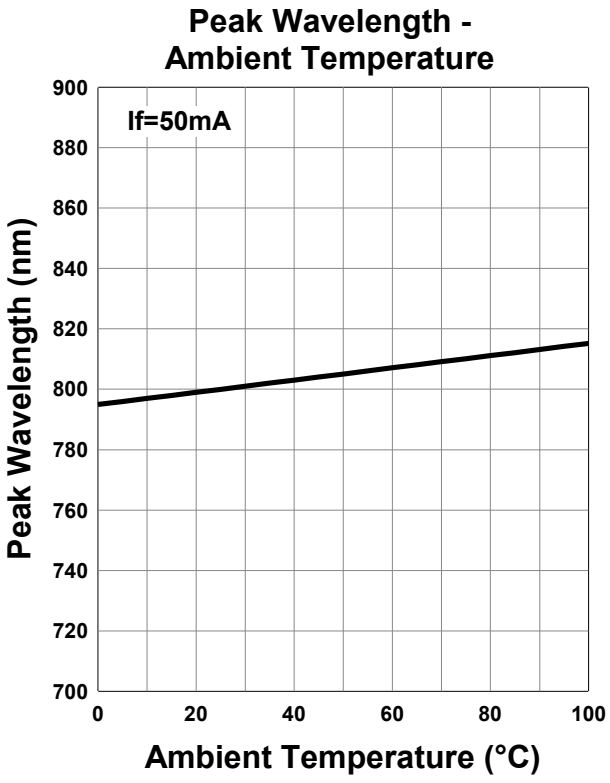


Allowable Forward Current - Ambient Temperature

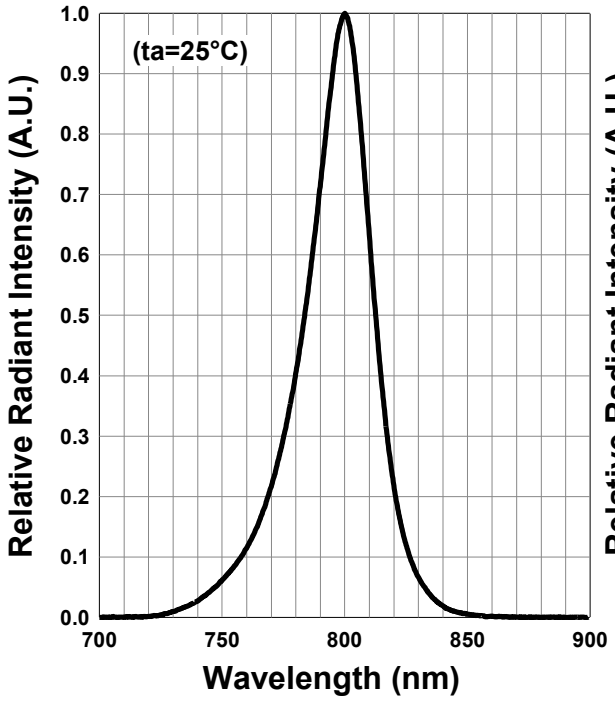



Forward Voltage -
Ambient Temperture
If=50mA
Forward Voltage (V)
2.4
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0
20
40
60
80
100
Ambient Temperatture (°C)

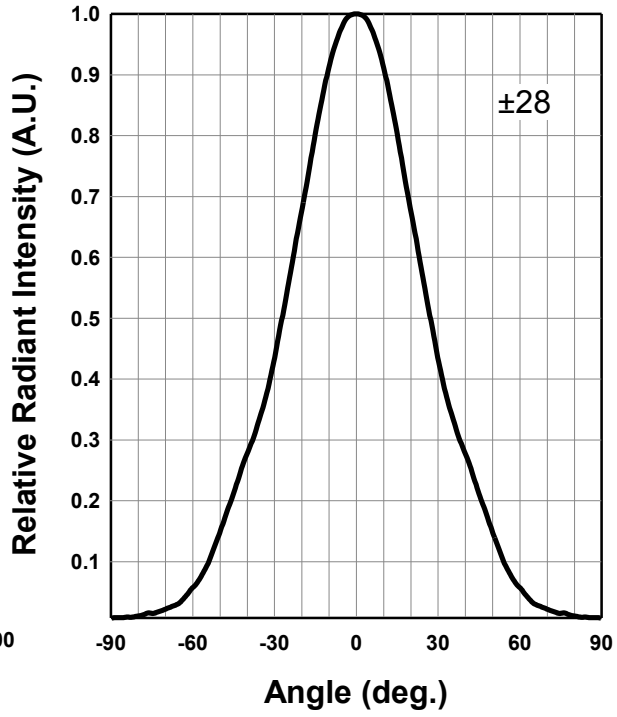

Relative Radiant Intensity -
Ambient Temperature
If=50mA
Relative Radiant Intensity (A.U.)
10
1
0.1
0
20
40
60
80
100
Ambient Temperature (°C)


Peak Wavelength -
Ambient Temperature
If=50mA
Peak Wavelength (nm)
900
880
860
840
820
800
780
760
740
720
700
0
20
40
60
80
100
Ambient Temperature (°C)

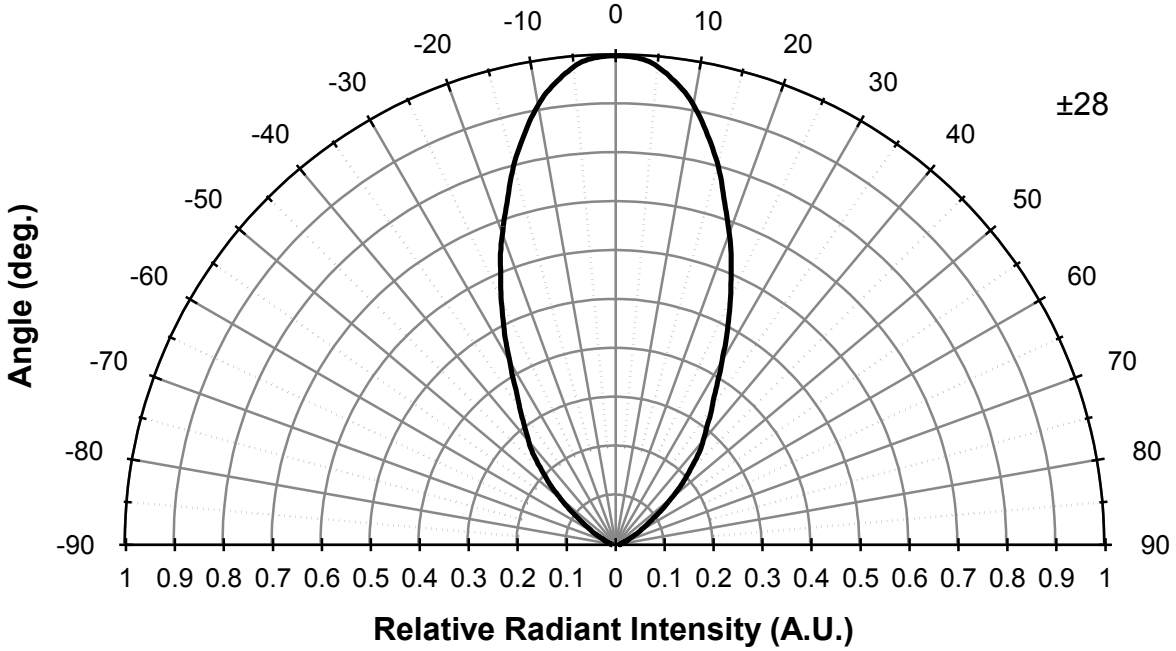
Relative Spectral Emission



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

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

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