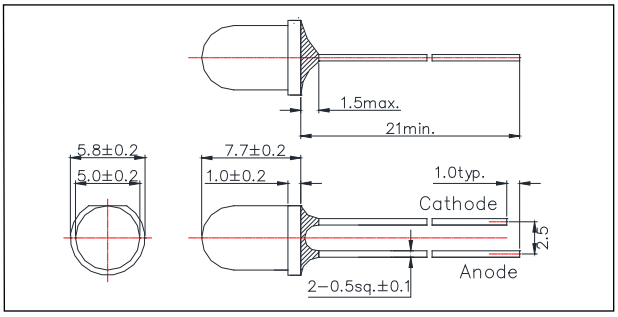
L770-04AU

Infrared LED Lamp

<Specifications>

- Chip Material: AlGaAs
- Chip DimensionL 400um x 400um
- Number of Chips: 1pcs
- Peak Wavelength: 770nm typ.
- Package Type: Φ5mm Clear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25℃]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	220	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	120	℃
Thermal Resistance	Rthjp	190	K/W
Operating Temperature	TOPR	-40 ~ +100	℃
Storage Temperature	TSTG	-40 ~ +100	℃
Soldering Temperature**	TSOL	265	℃

* Duty=1% and Pulse Width=10us.
** Soldering condition must be completed within 3 second at 265 ℃.

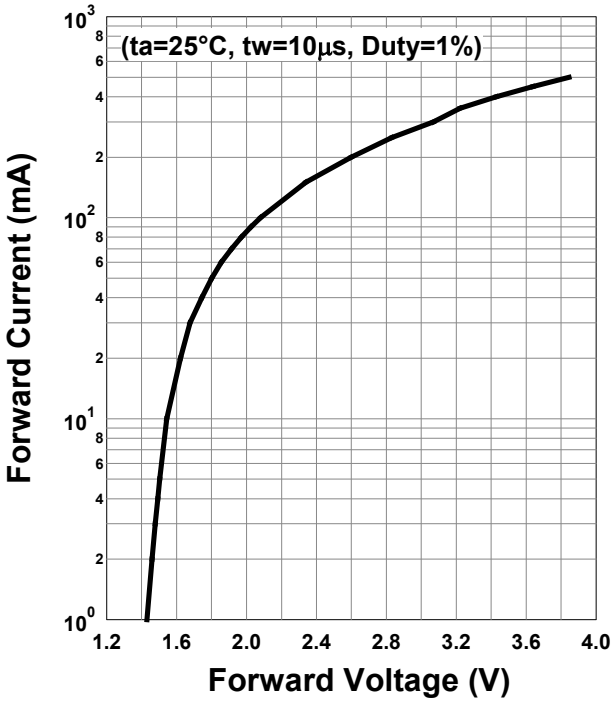
Electro-Optical Characteristics [Tc=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.8	2.2	V
	VFP	IFP=500mA		3.8		
Total Radiated Power*	PO	IF=50mA		25		mW
		IFP=500mA		260		
Radiant Intensity**	IE	IF=50mA		96		mW/sr
		IFP=500mA		1000		
Peak Wavelength	λP	IF=50mA	760		780	nm
Half Width	Δλ	IF=50mA		26		nm
Viewing half Angle	θ1/2	IF=50mA		±17		deg
Rise Time	tr	IF=50mA		10		ns
Fall Time	tf	IF=50mA		15		ns

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

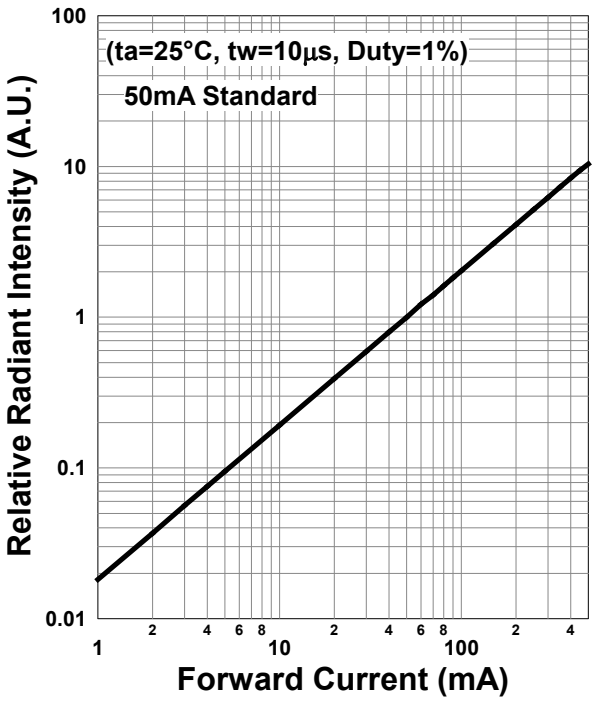
RoHS Compliant

Typical Characteristic Curves

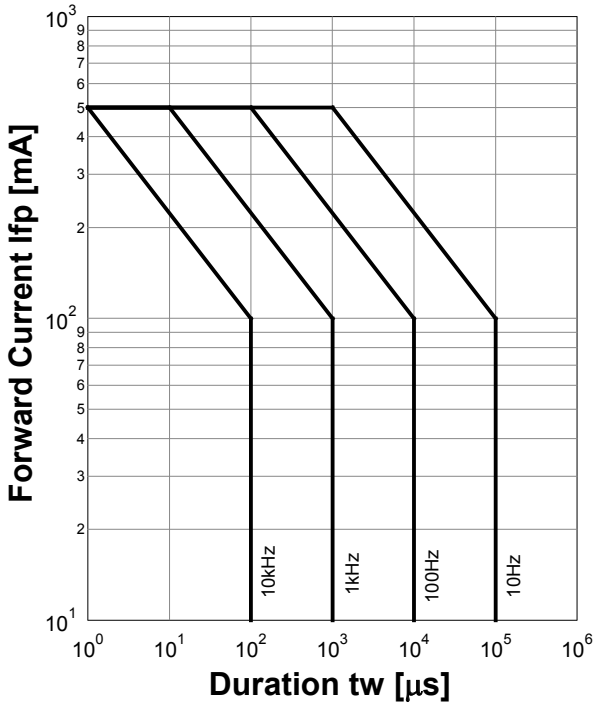
Forward Curent - Forward Voltage



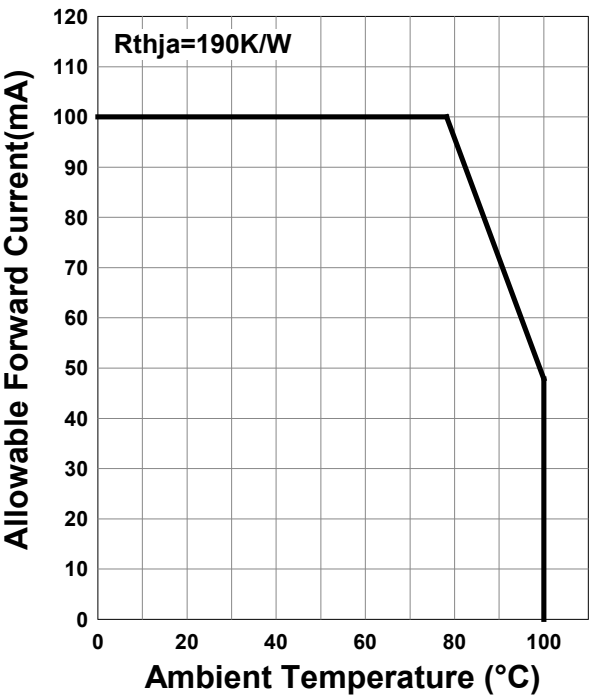
Relative Radiant Intensity - Forward Current

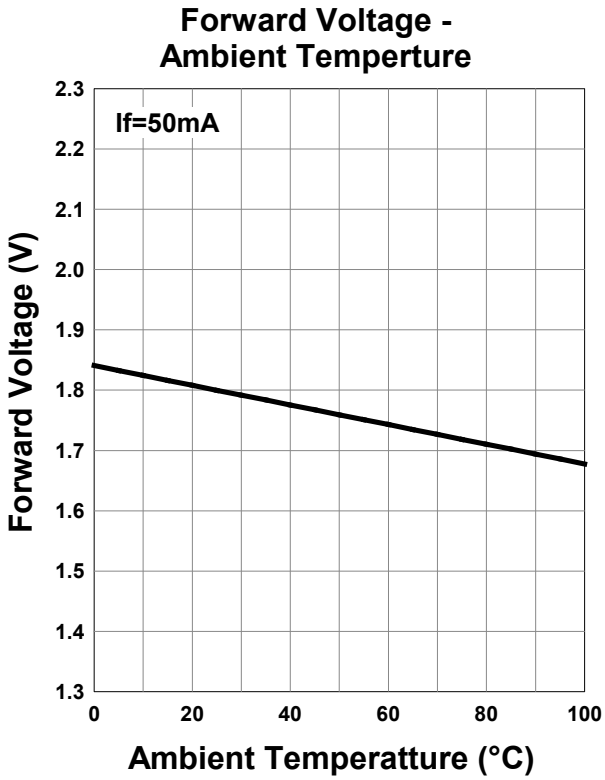


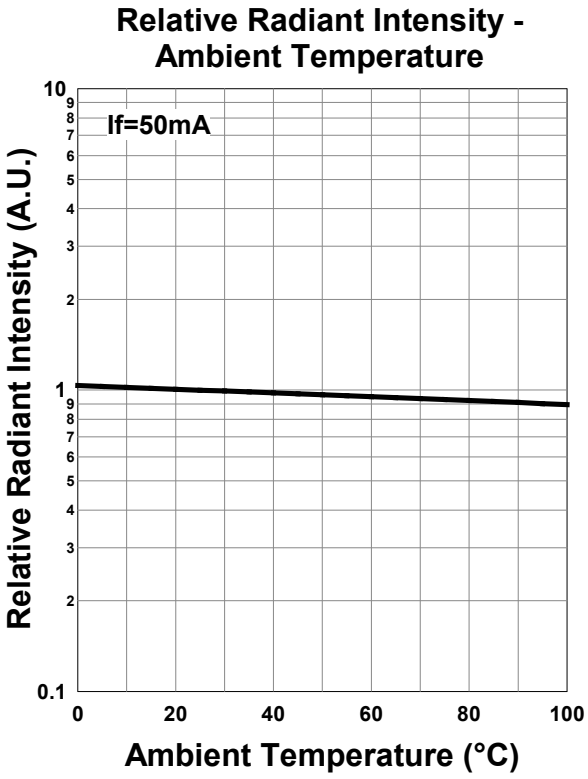
Forward Current - Pulse Duration

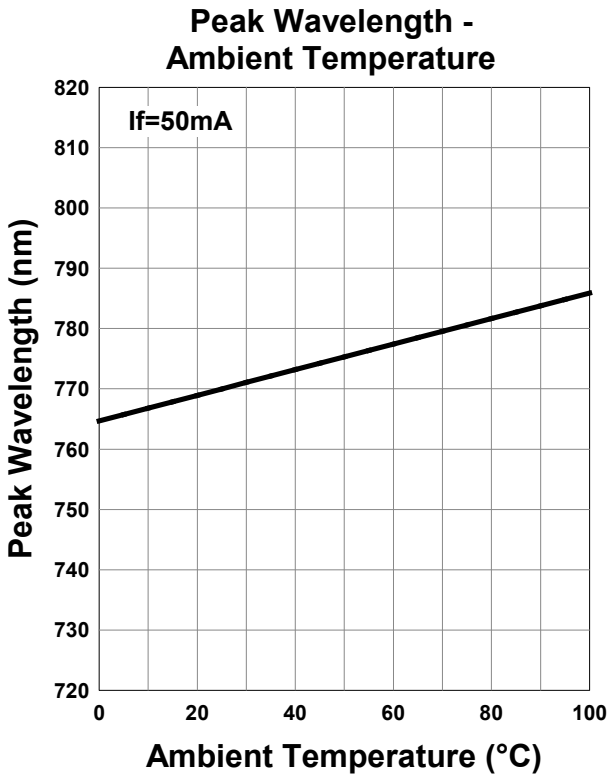


Allowable Forward Current - Ambient Temperature

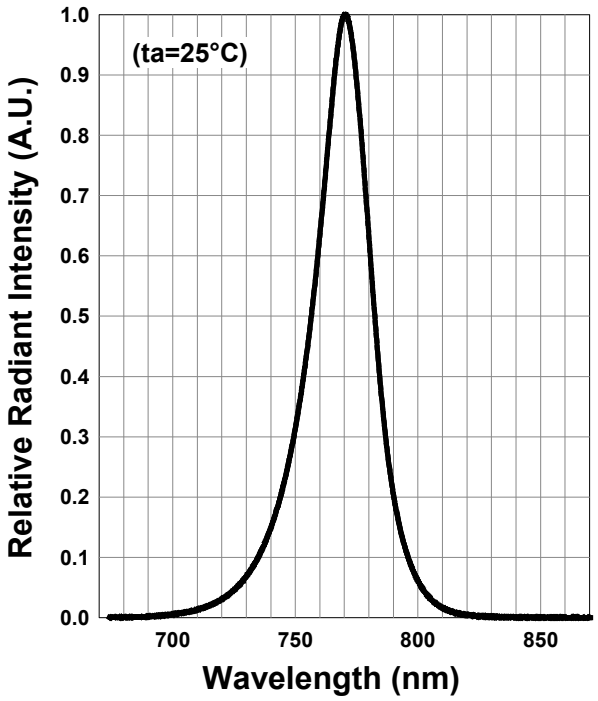



Forward Voltage -
Ambient Temperture
If=50mA
Forward Voltage (V)
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
0
20
40
60
80
100
Ambient Temperatture (°C)

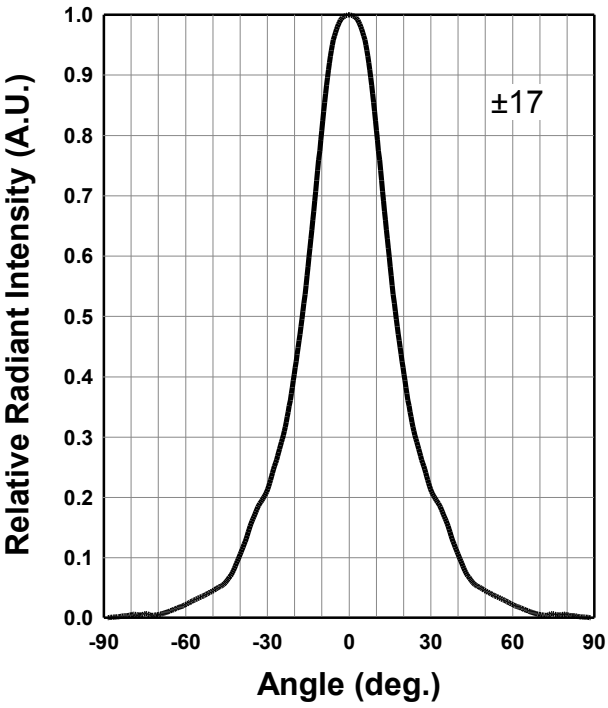

Relative Radiant Intensity -
Ambient Temperature
If=50mA
Relative Radiant Intensity (A.U.)
10
1
0.1
0
20
40
60
80
100
Ambient Temperature (°C)


Peak Wavelength -
Ambient Temperature
If=50mA
Peak Wavelength (nm)
820
810
800
790
780
770
760
750
740
730
720
0
20
40
60
80
100
Ambient Temperature (°C)

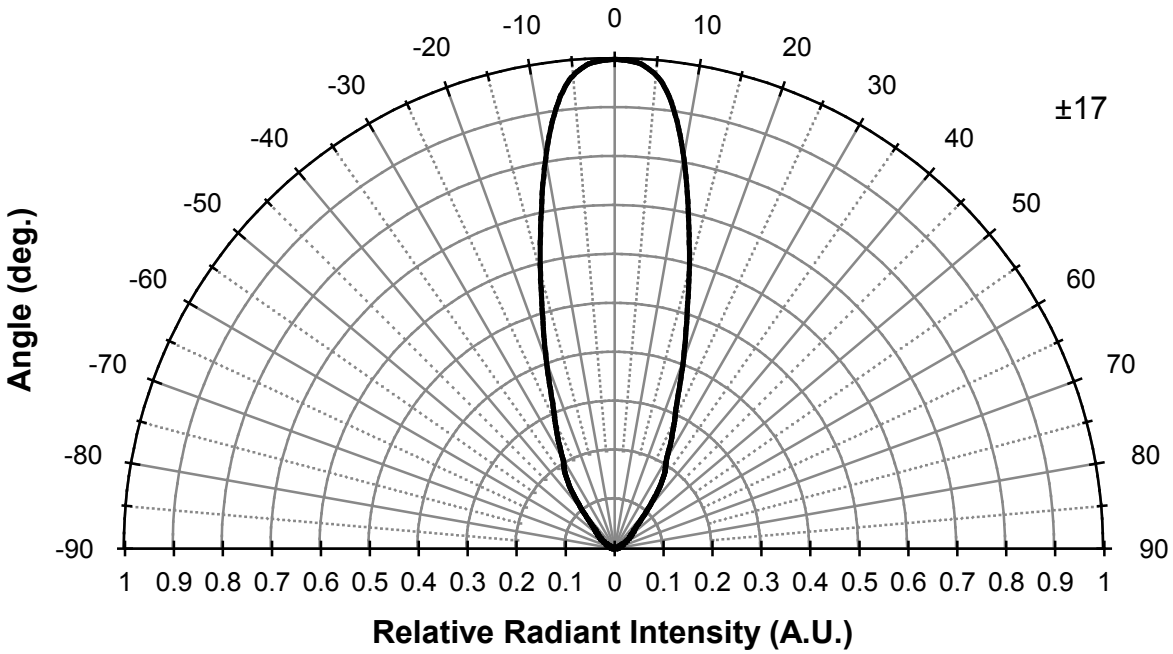
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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

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