

L870-04UP

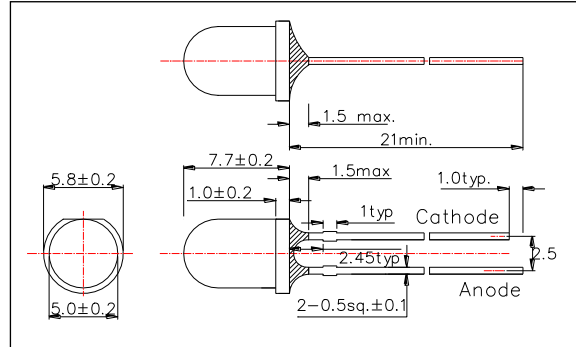
Infrared LED Lamp

L870-04UP is an AlGaAs LED mounted on a lead frame with a clear epoxy lens. It emits a spectral band of radiation at 870nm and 48mW typical of output power.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L870-04UP
3. Chip:
 - Chip material: AlGaAs
 - Dimension: 400um x 400nm
 - Peak Wavelength: 870nm typ.
4. Package
 - Type: Φ5mm Clear Molding
 - Resin Material: Epoxy Resin
 - Lead Frame: Soldered

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	160	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1000	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	100	°C
Thermal Resistance**	Rthja	230	K/W
Operating Temperature	TOPR	-40 ~ +85	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature	TSOL	265	°C

* Duty=1% and Pulse Width=10us.

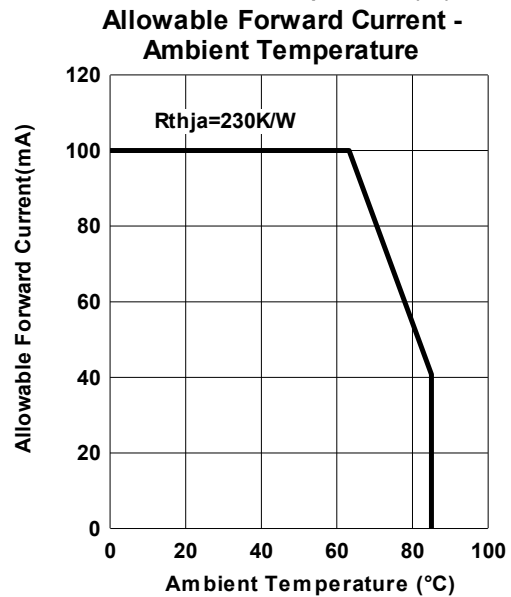
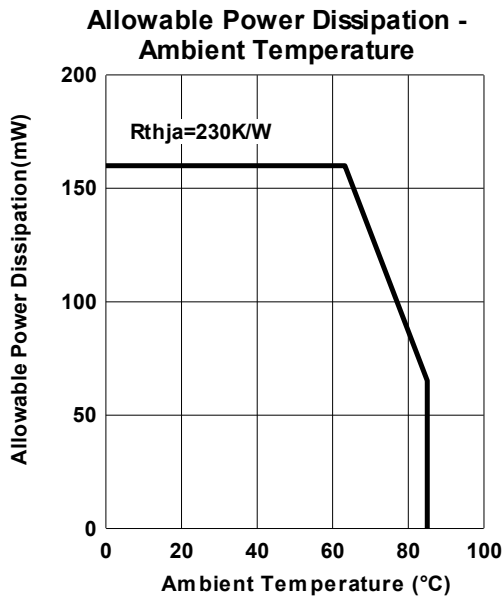
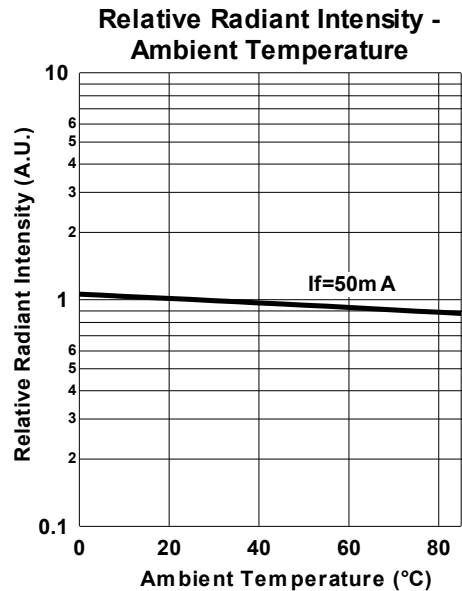
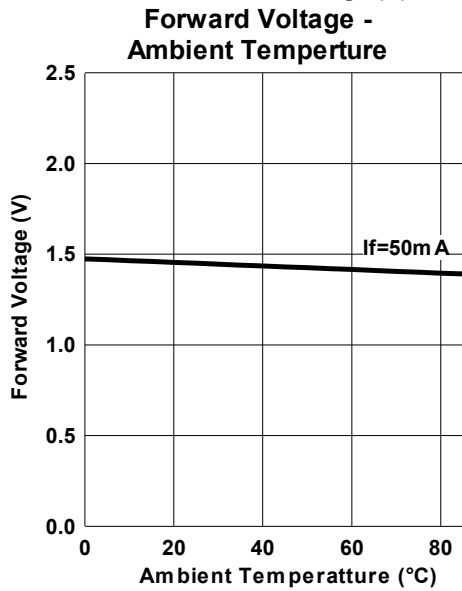
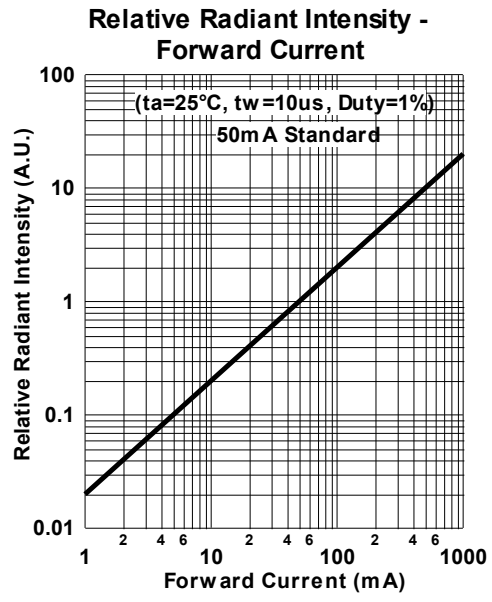
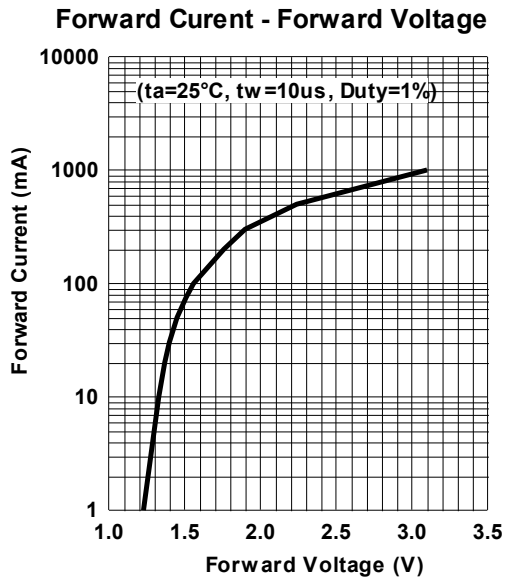
** Junction - ambient, leads 7mm, soldered on PCB

Electro-Optical Characteristics[Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA DC		1.45	1.60	V
		IF=100mA, tp=20ms		1.50	1.70	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA DC	18	24		mW
		IF=100mA, tp=20ms		48		
Radiant Intensity**	IE	IF=50mA DC		55		mW/sr
		IF=100mA, tp=20ms		110		
Peak Wavelength	λP	IF=50mA DC	860	870	880	nm
Half Width	Δλ	IF=50mA DC		45		nm
Viewing Half Angle	θ1/2	IF=50mA DC		±18		deg
Rise Time	tr	IF=50mA DC		15		ns
Fall Time	tf	IF=50mA DC		10		ns

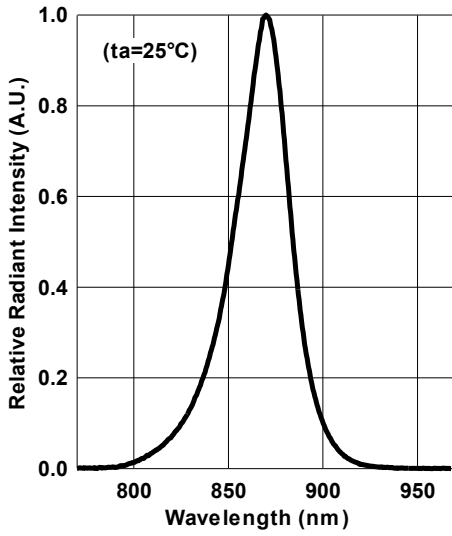
* Measured by Photodyne #500

** Measured by Tektronix J-6512

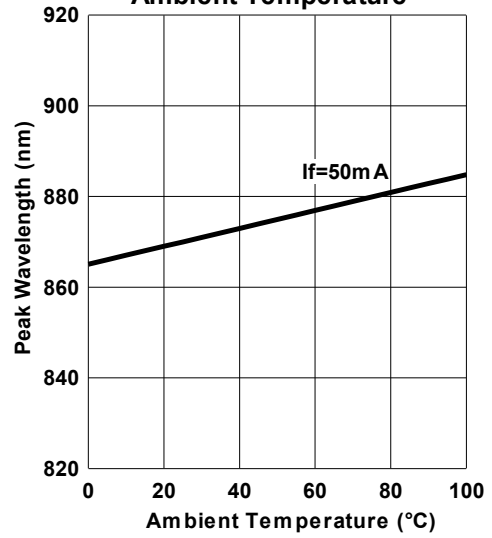




Relative Spectral Emission



Peak Wavelength - Ambient Temperature



Radiation Characteristics

