

**L870F-06-45**

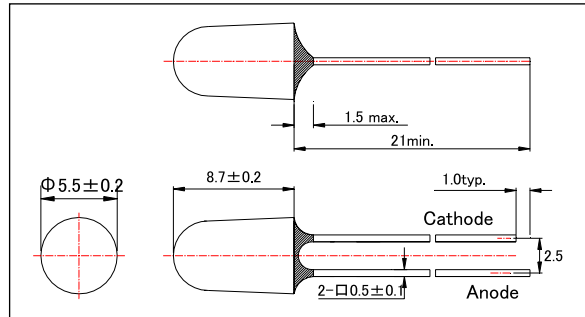
Infrared LED Lamp for High Current Drive

L870F-06-45(LN870F-06-45) is an AlGaAs LED mounted on a lead frame with a clear epoxy lens, On forward bias, it emits a spectral band of radiation that peaks at 870nm. These devices are intended to be operated at pulsed current of 1A under typical 3.4V for stable long life.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L870F-06-45
3. Chip:
  - Chip material: AlGaAs
  - Dimension: 450um x 450um
  - Peak Wavelength: 870nm typ.
4. Package
  - Type: Φ5mm Clear Molding
  - Resin Material: Epoxy Resin
  - Lead Frame: Soldered(Lead Free)

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	150	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1500	mA
Reverse Voltage	VR	10	V
Operating Temperature	TOPR	-30 ~ +85	°C
Storage Temperature	TSTG	-30 ~ +100	°C
Soldering Temperature	TSOL	260	°C

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

\*\* Soldering condition must be completed within 3 second at 260 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA DC		1.43	1.50	V
Pulsed Forward Voltage	VFP	IFP=1A		3.4	4.0	
Reverse Current	IR	VR=10V			10	uA
Total Radiated Power*	PO	IF=50mA DC	18	24		mW
		IF=100mA, tp=20ms		48		
Radiant Intensity**	IE	IF=50mA DC	120	160		mW/sr
		IF=100mA, tp=20ms		320		
Peak Wavelength	λP	IF=50mA DC	860	870	880	nm
Half Width	Δλ	IF=50mA DC		40		nm
Viewing Half Angle	θ1/2	IF=50mA DC		±7		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

