

L870F-04-45

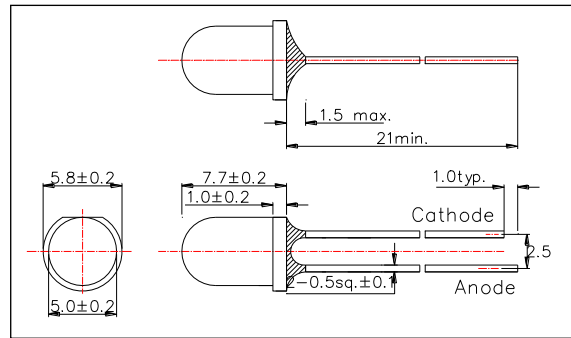
Infrared LED Lamp

L870F-04-45 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-04-45
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	265	°C

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

** Soldering condition must be completed within 3 second at 265 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF VFP	IF=50mA		1.43	1.50	V
		IFP=1A		2.8	4.3	
		IFP=1.5A		3.8	4.8	
Reverse Current	IR	VR=10V			10	uA
Total Radiated Power*	PO	IF=50mA	18	24		mW
Radiant Intensity**	IE	IF=50mA	25	50		mW/sr
	IEP	IFP=1.5A		1500		
Peak wavelength	λP	IF=50mA	860	870	880	nm
Half Width	Δλ	IF=50mA		40		nm
Viewing Half Angle	θ1/2	IF=50mA		±21		deg
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512

