

L870F-05-45

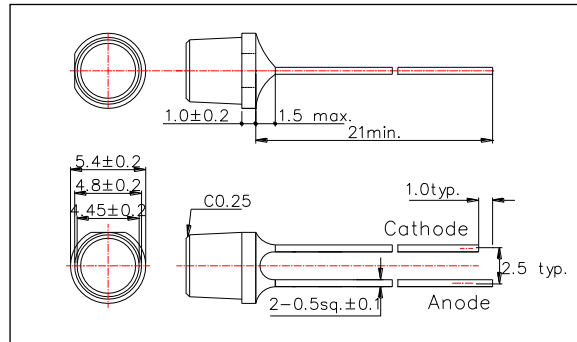
Infrared LED Lamp

L870F-05-45(LN870F-05-45) 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>

- Product Name: Infrared LED Lamp
- Type Number: L870F-05-45
- Chip:
 - Chip material: AlGaAs
 - Dimension: 450μm x 450μm
 - Peak Wavelength: 870nm typ.
- 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		1.43	1.50	V
Pulsed Forward Voltage	VFP	IFP=1A		3.4	4.0	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	18	22		mW
Radiant Intensity**	IE	IF=50mA	10	16		mW/sr
Peak wavelength	λP	IF=50mA	860	870	880	nm
Half Width	Δλ	IF=50mA		40		nm
Viewing Half Angle	θ1/2	IF=50mA		±40		deg
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512

