

L870F-04-55 Infrared LED Lamp for High Current Drive

L870F-04-55 is an AlGaAs LED mounted on a lead frame with a clear epoxy lens.

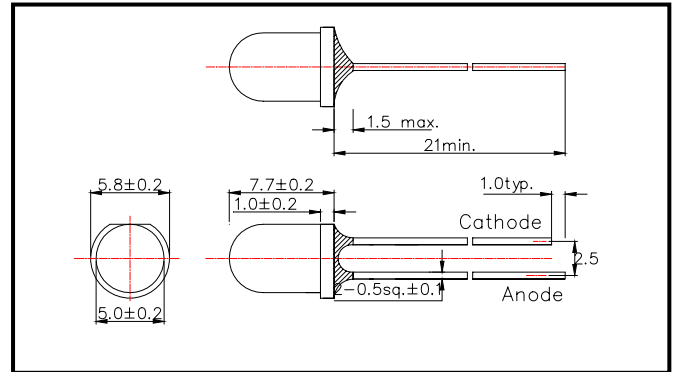
On forward bias, it emits a spectral band of radiation which peaks at 870nm.

These devices are intended to be operated at pulsed current of 2A under maximum 4.3V for stable long life.

◆ Specifications

1)Product Name	Infrared LED Lamp
2)Type No.	L870F-04-55
3)Chip	
(1)Chip Material	AlGaAs
(2)Chip Dimension	550umx550um
(3)Peak Wavelength	870nm typ.
4)Package	
(1)Type	Φ5mm clear molding
(2)Resin Material	Epoxy Resin
(3)Lead Frame	Soldered

◆ Outer dimension(Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	150	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current	IFP	2000	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-30 ~ +85	°C	
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	260	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition : Soldering condition must be completed within 3 seconds at 260°C

◆ Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF/VFP	IF=50mA DC		1.42	1.50	V
		IFP=1A		2.4		
		IFP=2A		3.4	4.4	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA DC	18.0	22.0		mW
		IF=100mA, tp=20ms		44.0		
Radiant Intensity	IE/IEP	IF=50mA DC	25	45		mW/sr
		IF=100mA, tp=20ms		90		
		IFP=2A		1800		
Peak Wavelength	λP	IF=50mA DC	860	870	880	nm
Half Width	Δλ	IF=50mA DC		40		nm
Viewing Half Angle	θ 1/2	IF=50mA DC		±25		
Rise Time	tr	IF=50mA DC		15		ns
Fall Time	tf	IF=50mA DC		10		ns

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.