

L850F-09-55 (LN850F-09-55) Oval type Infrared LED

L850F-09-55 is an AlGaAs LED mounted on a lead frame with a clear oval type epoxy lens.

On forward bias, it emits a spectral band of radiation which peaks at 850nm. These devices are intended to be operated at pulsed current of 1A under maximum 4.0V for stable long life.

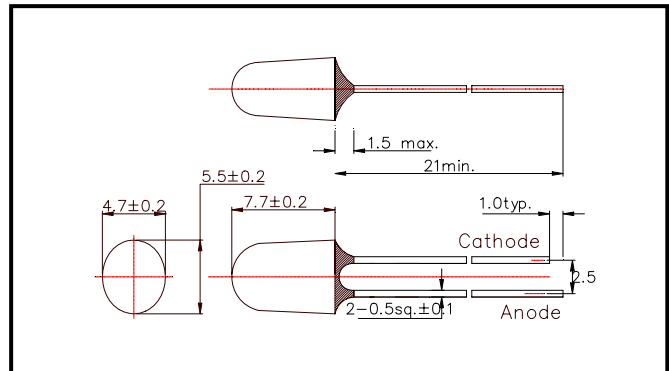
◆ Features

- 1) high power and low forward voltage
- 2) different axis of emission at latitude and longitude

◆ Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L850F-09-55
3) Chip	
(1) Chip Material	AlGaAs
(2) Chip Dimension	550umx550um
(3) Peak Wavelength	850nm 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	1000	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	IF=50mA DC		1.40	1.50	V
Pulsed Forward Voltage	VFP	IFP=1A		3.2	4.0	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA DC	18.0	20.0		mW
		IF=100mA, tp=20ms		40.0		
Radiant Intensity	IE	IF=50mA DC		50		mW/sr
		IF=100mA, tp=20ms		100		
Peak Wavelength	λP	IF=50mA DC	840	850	860	nm
Half Width	Δλ	IF=50mA DC		40		nm
Viewing Half Angle	long	θ 1/2	IF=50mA DC	±25		deg.
	short			±15		
Rise Time	tr	IF=50mA DC		15		ns
Fall Time	tf	IF=50mA DC		10		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

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