

## L850F-06-45 (LN850F-06-45) Infrared LED Lamp for High Current Drive

L850F-06-45 is an AlGaAs LED mounted on a lead frame with a clear epoxy lens.

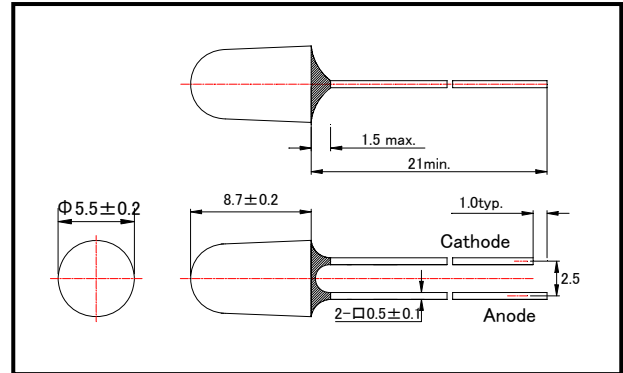
On forward bias it emits a spectral band of radiation, which peaks at 850nm.

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 No.	L850F-06-45
3) Chip	
(1) Chip Material	AlGaAs
(2) Chip Dimension	450umx450um
(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	1500	mA	Ta=25°C
Reverse Voltage	VR	10	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		1.43	1.50	V
Pulsed Forward Voltage	VF	IFP=1A		3.4	4.0	V
Reverse Current	IR	VR=10V			10	uA
Total Radiated Power	PO	IF=50mA DC	18.0	24.0		mW
		IF=100mA, tp=20ms		48.0		
Radiant Intensity	IE	IF=50mA DC	120	150		mW/sr
		IF=100mA, tp=20ms		300		
Peak Wavelength	$\lambda_P$	IF=50mA DC	840	850	860	nm
Half Width	$\Delta\lambda$	IF=50mA DC		40		nm
Viewing Half Angle	$\theta_{1/2}$	IF=50mA DC		$\pm 7$		deg.
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.