

L850-04-50

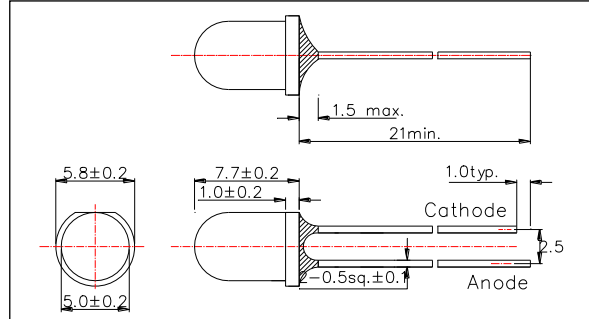
Infrared LED Lamp

L850-04-50 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 850nm. These devices are intended to be operated at pulsed current of 2A under 3.5V type.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L850-04-50
3. Chip:
 - Chip material: AlGaAs
 - Dimension: 500um x 500um
 - Peak Wavelength: 850nm typ.
4. Package
 - Type: Φ5mm Clear Molding
 - Resin Material: Epoxy Resin
 - Lead Frame: Soldered

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	170	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	2000	mA
Reverse Voltage	VR	5	V
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +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	IF=50mA		1.45	1.55	V
		IF=100mA, tp=20ms		1.50	1.70	
		IFP=2A		3.4	4.0	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	20	28		mW
		IF=100mA, tp=20ms	40	56		
Radiant Intensity**	IE	IF=50mA		45		mW/sr
		IF=100mA, tp=20ms		90		
		IFP=2A		1600		
Peak Wavelength	λP	IF=50mA	835	850	865	nm
Half Width	Δλ	IF=50mA		40		nm
Viewing Half Angle	θ1/2	IF=50mA		±16		deg
Rise Time	tr	IF=50mA		15		ns
Fall Time	tf	IF=50mA		10		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512

