

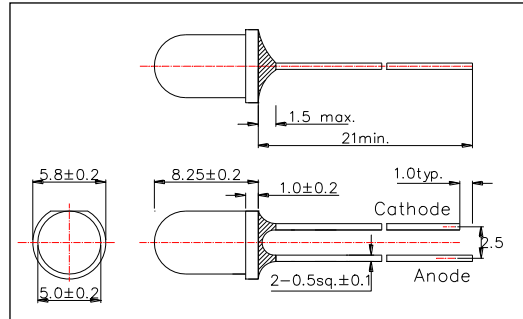
L850-03UP**Infrared LED Lamp**

L850-03UP 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.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L850-03UP
3. Chip:
 - Chip material: AlGaAs
 - 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	160	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1000	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	100	°C
Thermal Resistance**	Rthjp	240	K/W
Operating Temperature	TOPR	-40 ~ +85	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature***	TSOL	265	°C

* Duty=1% and Pulse Width=10us.

** Junction - ambient, leads 7mm, soldered on PCB

*** 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 DC		1.45	1.60	V
		IF=100mA, tp=20ms		1.50	1.80	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA DC	18	25		mW
		IF=100mA, tp=20ms		48		
Radiant Intensity**	IE	IF=50mA DC		115		mcd
		IF=100mA, tp=20ms	(160)	230		
Peak Wavelength	λP	IF=50mA DC	835	850	865	nm
Half Width	Δλ	IF=50mA DC		40		nm
Viewing Half Angle	θ1/2	IF=50mA DC		±13		deg
Rise Time	Tr	IF=50mA DC		15		ns
Fall Time	tf	IF=50mA DC		10		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512



