

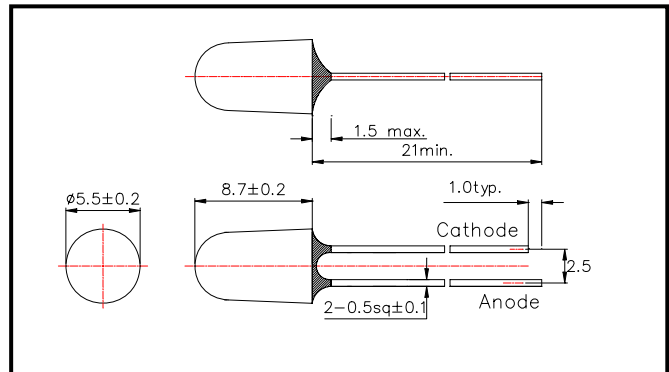
L850-06UP (LN850-06UP) Infrared LED Lamp

L850-06UP 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.

◆ Specifications

1)Product Name	Infrared LED Lamp
2)Type No.	L850-06UP
3)Chip	
(1)Chip Material	AlGaAs
(2)Chip Size	0.4mm*0.4mm
(3)Peak Wavelength	850nm typ.
4)Package	
(1)Type	Φ5mm clear molding
(2)Resin Material	Epoxy Resin

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	160	mW	$T_a=25^\circ\text{C}$
Forward Current	I_F	100	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	I_{FP}	1000	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	V_R	5	V	$T_a=25^\circ\text{C}$
Operating Temperature	T_{OPR}	-30 ~ +85	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	260	$^\circ\text{C}$	

‡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 [$T_a=25^\circ\text{C}$]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F=50\text{mA DC}$		1.50	1.70	V
		$I_F=100\text{mA}, t_p=20\text{ms}$		1.55	1.90	
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F=50\text{mA DC}$	18.0	22.0		mW
		$I_F=100\text{mA}, t_p=20\text{ms}$		44.0		
Radiant Intensity	I_E	$I_F=50\text{mA DC}$	90	150		mW/sr
		$I_F=100\text{mA}, t_p=20\text{ms}$		300		
Peak Wavelength	λ_P	$I_F=50\text{mA DC}$	840	850	860	nm
Half Width	$\Delta\lambda$	$I_F=50\text{mA DC}$		40		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=50\text{mA DC}$		± 7		deg.
Rise Time	t_r	$I_F=50\text{mA DC}$		15		ns
Fall Time	t_f	$I_F=50\text{mA DC}$		10		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.