

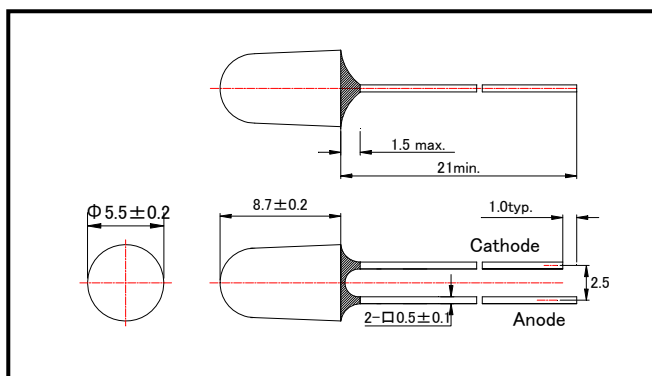
L850D-06-50 Infrared LED Lamp for High Radiant Intensity

L850D-06-50 is an AlGaAs LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a spectral band of radiation which peaks at 850nm. These devices are intended to be operated at pulsed current of 2A under 3.5V typ.

◆ Specifications

- 1)Product Name Infrared LED Lamp
- 2)Type No. L850D-06-50
- 3)Chip
- (1)Chip Material AlGaAs
- (2)Chip Dimension 500umx500um
- (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	P _D	155	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	2000	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-40 ~ +100	°C	
Storage Temperature	T _{STG}	-40 ~ +100	°C	
Soldering Temperature	T _{SOL}	265	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

◆ Electro-Optical Characteristics [T_a=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F /V _{FP}	I _F =50mA		1.45	1.50	V
		I _F =100mA, t _p =20ms		1.50	1.70	
		I _{FP} =2A		3.4	4.0	
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =50mA	20.0	28.0		mW
		I _F =100mA, t _p =20ms	40	56		
Radiant Intensity	I _E	I _F =50mA		200		mW/sr
		I _F =100mA, t _p =20ms		400		
		I _{FP} =2A		8000		
Peak Wavelength	λ _P	I _F =50mA	835	850	865	nm
Half Width	Δλ	I _F =50mA		40		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±5		
Rise Time	t _r	I _F =50mA		15		ns
Fall Time	t _f	I _F =50mA		10		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.