

Lead (Pb) Free Product – RoHS Compliant

# L850F-06-55CU

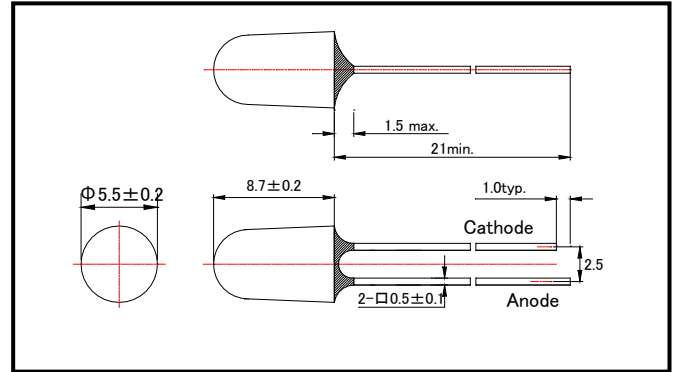
Infrared LED Lamp for High Current Drive

L850F-06-55CU is an AlGaAs LED mounted on a copper made 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 maximum 4.3V.

◆ Specifications

- 1)Product Name      Infrared LED Lamp
- 2)Type No.          L850F-06-55CU
- 3)Chip
- (1)Chip Material    AlGaAs
- (2)Chip Dimension   550um\*550um
- (3)Peak Wavelength 850nm typ.
- 4)Package
- (1)Type              Φ5mm clear molding
- (2)Resin Material   Epoxy Resin
- (3)Lead Frame       Cu made

◆ Outer dimension(Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	150	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	100	mA	T <sub>a</sub> =25°C
Pulse Forward Current	I <sub>FP</sub>	2000	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Junction Temperature	T <sub>J</sub>	100	°C	
Thermal Resistance	R <sub>thja</sub>	150	K/W	
Operating Temperature	T <sub>OPR</sub>	-30 ~ +85	°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	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

‡Thermal resistance: junction – ambient, leads 7mm, soldered on PCB.

◆ Electro-Optical Characteristics [T<sub>a</sub>=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub> /V <sub>FP</sub>	I <sub>F</sub> =50mA		1.42	1.50	V
		I <sub>FP</sub> =1A		3.2	3.5	
		I <sub>FP</sub> =2A		3.6	4.3	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =50mA	18.0	24.0		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =50mA	90	120		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =50mA	835	850	865	nm
Half Width	Δλ	I <sub>F</sub> =50mA		40		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =50mA		±8		
Rise Time	t <sub>r</sub>	I <sub>F</sub> =50mA		15		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =50mA		10		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

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