

**L870F-06U**

**Infrared LED Lamp for License Plate Recognition**

L870F-06U is designed to be used for high power and lower forward voltage illuminator.

On forward bias, it emits a spectral band of radiation that peaks at 870nm.

These devices are intended to be operated at pulsed current of 1A under typical 3.4V for stable long life.

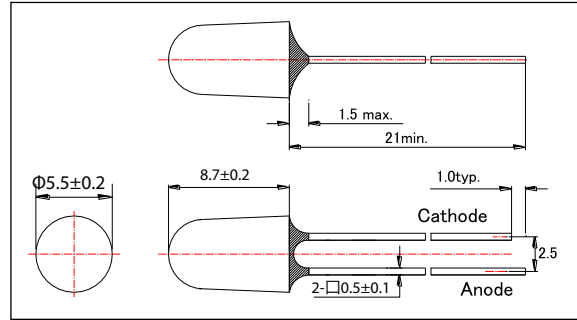
<Features>

- High Speed and High Power
- Adjustable to be Synchronized with Video Camera Shutter
- More Reflectable to Metal License Plate

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L870F-06U
3. Chip:
  - Chip material: AlGaAs
  - Dimension: 0.4mm x0.4mm
  - Peak Wavelength: 870nm typ.
4. Package
  - Type: Φ5mm Clear Molding
  - Resin Material: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	150	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1500	mA
Reverse Voltage	VR	10	V
Operating Temperature	TOPR	-30 ~ +85	°C
Storage Temperature	TSTG	-30 ~ +100	°C
Soldering Temperature	TSOL	260	°C

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

\*\* Soldering condition must be completed within 3 second at 260 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA DC		1.45	1.55	V
		IF=100mA, tp=20ms		1.50	1.75	
Pulsed Forward Voltage	VFP	IFP=1A		3.5	4.0	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA DC	18	24		mW
		IF=100mA, tp=20ms		48		
Radiant Intensity**	IE	IF=50mA DC	120	160		mW/sr
		IF=100mA, tp=20ms		100		
Peak Wavelength	λP	IF=50mA DC	860	870	880	nm
Half Width	Δλ	IF=50mA DC		40		nm
Viewing Half Angle	θ1/2	IF=50mA DC		±7		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