

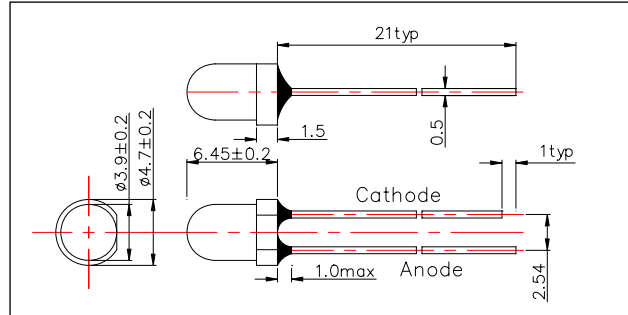
L870-42UP**Infrared LED Lamp**

L870-42UP(LN870-42UP) 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 870nm

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L870-42UP
3. Chip:
 - Chip material: AlGaAs
 - Dimension: 0.4mm x 0.4mm
 - Peak Wavelength: 870nm typ.
4. Package
 - Type: Φ4mm 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
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		1.50	1.70	V
		IF=100mA, tp=20ms		1.55	1.90	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA DC	18	22		mW
		IF=100mA, tp=20ms		44		
Radiant Intensity**	IE	IF=50mA DC	50	90		mW/sr
		IF=100mA, tp=20ms		180		
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		±16		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

