



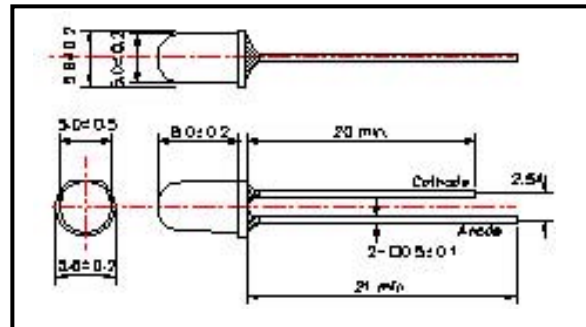
LED870-01UP (LN870-01UP) Infrared LED Lamp

LED870-01UP 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 870 nm.

Specifications

1)Product Name	Infrared LED Lamp
2)Type No.	LED870-01UP
3)Chip	
(1)Chip Material	AlGaAs
(2)Peak Wavelength	870 nm 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	160	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	1000	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-30 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	260	°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°C

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.50	1.70	V
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =50mA	18.0	22.0		mW
Radiant Intensity	I _E	I _F =50mA	60	90		mW/sr
Peak Wavelength	λ _P	I _F =50mA	860	870	880	nm
Half Width	Δλ	I _F =50mA		35		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±10		deg.
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.