



## LED770-03AU

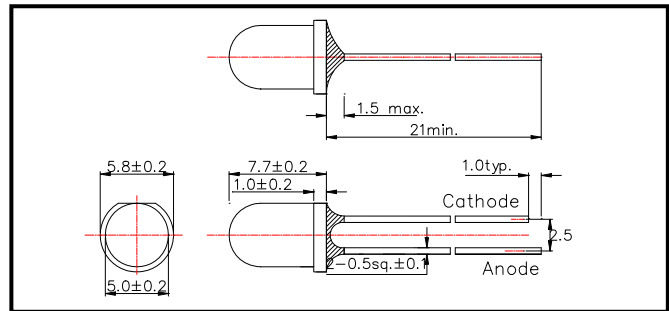
## Infrared LED Lamp

LED770-03AU 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 770 nm.

### Specifications

- 1) Product Name      Infrared LED Lamp
- 2) Type No.          LED770-03AU
- 3) Chip
- (1) Chip Material      AlGaAs
- (2) Peak Wavelength 770 nm typ.
- 4) Package
- (1) Type                5 mm 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 <sub>D</sub>	190	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>	500	mA	T <sub>a</sub> = 25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> = 25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +85	°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	260	°C	

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

‡Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 50 mA		1.75	1.95	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5 V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> = 50 mA	13.0	18.0		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> = 50 mA	18	35		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> = 50 mA	750	770	790	nm
Half Width	Δλ	I <sub>F</sub> = 50 mA		35		nm
Viewing Half Angle	α	I <sub>F</sub> = 50 mA		±15		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> = 50 mA		80		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> = 50 mA		80		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512