

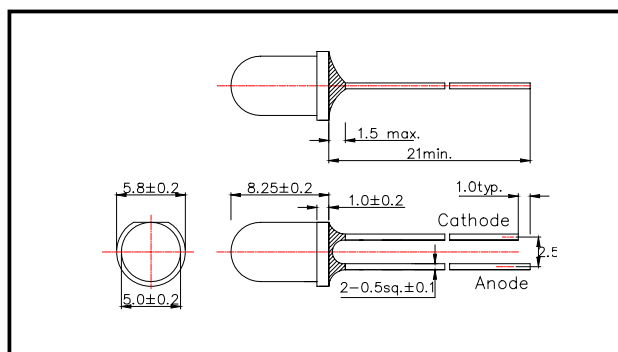
LED770-03AU Infrared LED Lamp

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 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	190	mW	$T_a=25^\circ\text{C}$
Forward Current	I_F	100	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	I_{FP}	500	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	V_R	5	V	$T_a=25^\circ\text{C}$
Operating Temperature	T_{OPR}	-30 ~ +85	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	260	$^\circ\text{C}$	

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

‡Soldering condition: Soldering condition must be completed within 5seconds at 265°C

◆ Electro-Optical Characteristics [$T_a=25^\circ\text{C}$]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F=50\text{mA}$		1.75	1.95	V
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F=50\text{mA}$	13.0	18.0		mW
Radiant Intensity	I_E	$I_F=50\text{mA}$	35	70		mW/sr
Peak Wavelength	λ_P	$I_F=50\text{mA}$	750	770	790	nm
Half Width	$\Delta\lambda$	$I_F=50\text{mA}$		35		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=50\text{mA}$		± 15		deg.
Rise Time	t_r	$I_F=50\text{mA}$		80		ns
Fall Time	t_f	$I_F=50\text{mA}$		80		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.