

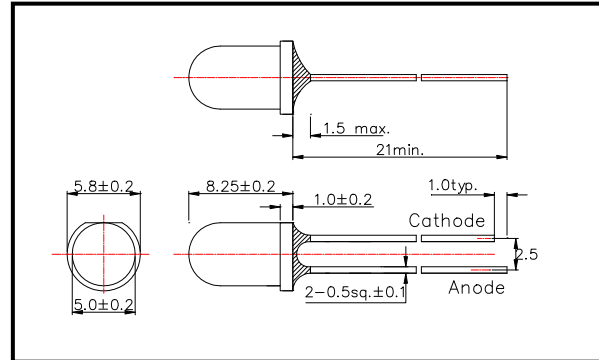
L980-03 Infrared LED Lamp

L980-03 is a GaAs LED mounted on a lead frame with a clear epoxy lens. On forward bias it emits a spectral band of radiation, which peaks at 985nm typ.

◆ Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L980-03
3) Chip	
(1) Chip Material	GaAs
(2) Chip Dimension	350um*350um
(3) Peak Wavelength	985nm typ.
4) Package	
(1) Type	Φ5mm clear molding
(2) Resin Material	Epoxy Resin
(3) Lead Frame	Lead Free Soldered

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	130	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
Junction Temperature	T _J	100	°C	
Thermal Resistance	R _{thja}	250	K/W	
Operating Temperature	T _{OPR}	-30 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	265	°C	

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

‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

‡Thermal resistance: junction – ambient, leads 7mm, soldered on PCB.

◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA DC		1.25	1.40	V
		I _F =100mA, t _p =20ms		1.30	1.60	
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =50mA DC	2.0	4.0		mW
		I _F =100mA, t _p =20ms		8.0		
Radiant Intensity	I _E	I _F =50mA DC		10		mW/sr
		I _F =100mA, t _p =20ms		20		
Peak Wavelength	λ _P	I _F =50mA DC	975	985	995	nm
Half Width	Δλ	I _F =50mA DC		45		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA DC		±11		deg.
Rise Time	t _r	I _F =50mA DC		40		ns
Fall Time	t _f	I _F =50mA DC		20		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512