

L940D-01T

Infrared LED Lamp

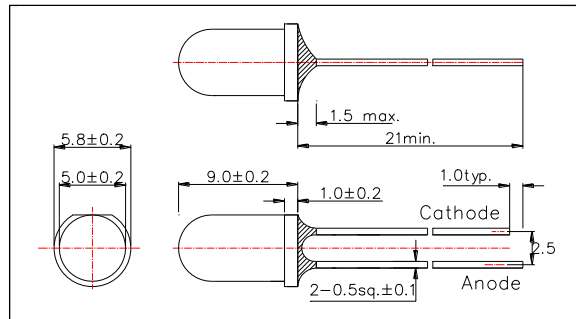
L940D-01T is an AlGaAs LED mounted on a lead frame with a clear epoxy lens. It is designed for high radiant intensity 120mW/sr type.

On forward bias, it emits a spectral band of radiation that peaks at 940nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L940D-01T
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 940nm typ.
4. Package
 - Type: Φ5mm Clear Molding
 - Resin Material: Epoxy Resin
 - Lead Frame: Ag Plated

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	140	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	100	°C
Thermal Resistance**	Rthja	290	K/W
Operating Temperature	TOPR	-30 ~ +85	°C
Storage Temperature	TSTG	-30 ~ +100	°C
Soldering Temperature***	TSOL	265	°C

* Duty=1% and Pulse Width=10us.

** Junction - ambient, leads 7mm, soldered on PCB.

*** Soldering condition must be completed within 3 second at 265°C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.30	1.40	V
		IF=100mA, tp=20ms		1.35	1.55	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=50mA	14	17		mW
		IF=100mA, tp=20ms		34		
Radiant Intensity**	IE	IF=50mA	40	60		mW/sr
		IF=100mA, tp=20ms		120		
Peak wavelength	λP	IF=50mA	930	940	955	nm
Half Width	Δλ	IF=50mA		50		nm
Viewing Half Angle	θ1/2	IF=50mA		±9		deg
Rise Time	tr	IF=50mA		1000		ns
Fall Time	tf	IF=50mA		500		ns

* Measured by Photodyne #500

** Measured by Tektronix J-6512

