

L810-06-55 Infrared LED Lamp for High Current Drive

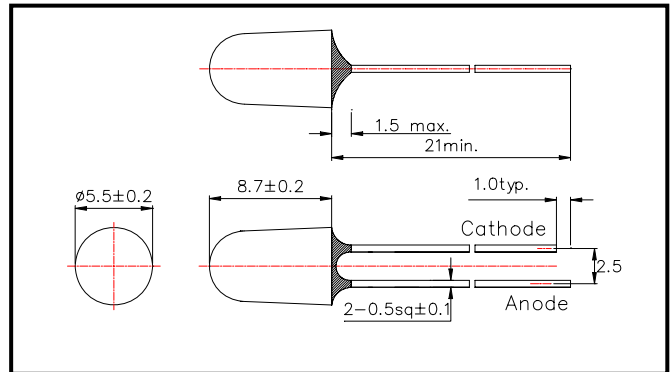
L810-06-55 is an AlGaAs LED mounted on a lead frame with a clear epoxy lens.

On forward bias, it emits a spectral band of radiation which peaks at 810nm. These devices are intended to be operated at pulsed current of 1A under maximum 4.0V for stable long life.

◆ Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L810-06-55
3) Chip	
(1) Chip Material	AlGaAs
(2) Chip Dimension	550umx550um
(3) Peak Wavelength	810nm 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	PD	160	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current	IFP	1000	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-30 ~ +85	°C	
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	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 [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.50	1.70	V
	VFP	IF=1000mA		3.0	4.0	
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA	16.0	20.0		mW
Radiant Intensity	IE	IF=50mA		100		mW/sr
	IEP	IFP=1000mA		2000		
Peak Wavelength	λP	IF=50mA	795	810	825	nm
Half Width	$\Delta\lambda$	IF=50mA		35		nm
Viewing Half Angle	$\theta 1/2$	IF=50mA		± 6		deg.
Rise Time	tr	IF=50mA		80		ns
Fall Time	tf	IF=50mA		80		ns

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

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.

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