Lead (Pb) Free Product – RoHS Compliant

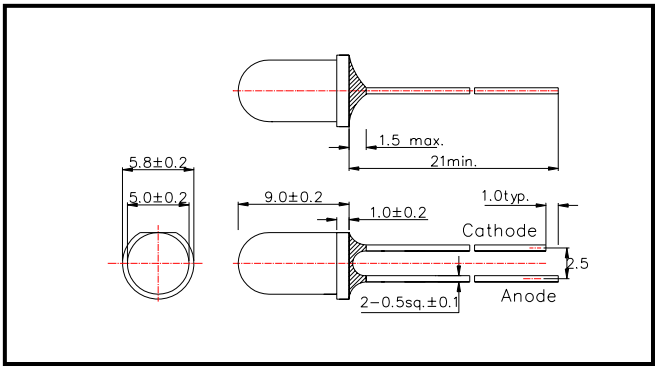
L840-01AU Infrared LED Lamp

L840-01AU 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 840nm.

♦Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L840-01AU
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	840nm 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	170	mW	Ta=25°C
Forward Current	IF	100	mA	Ta=25°C
Pulse Forward Current	IFP	500	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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.60	1.80	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA	16.0	18.0		mW
Radiant Intensity	IE	IF=50mA	45	90		mW/sr
Peak Wavelength	λP	IF=50mA	820	840	860	nm
Half Width	Δλ	IF=50mA		35		nm
Viewing Half Angle	θ 1/2	IF=50mA		±10		deg.
Rise Time	tr	IF=50mA		60		ns
Fall Time	tf	IF=50mA		40		ns

‡Total Radiated Power is measured by Photodyne #500
‡Radiant Intensity is measured by Tektronix J-6512

The product is manufactured by USHIO Inc. and the spec information is also from USHIO Inc.