

L830-__AU Infrared LED Lamp

This series of L830-__AU is a GaAlAs LED mounted on a lead frame and encapsulated in various types of epoxy lens which offer different design settings. On forward bias, it emits a high power radiation of typical 20mW with a peak wavelength at 830nm.

1) Specifications

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|---------------------|-------------------|
| (1) Chip material | AlGaAs |
| (2) Peak wavelength | 830nm |
| (3) Package | Clear epoxy resin |
| (4) Lead frame | Soldered |

2) 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	500	mA	Ta=25°C
Reverse Voltage	VR	5	V	Ta=25°C
Operating Temperature	TOPR	-30 ~ +85	°C	Ta=25°C
Storage Temperature	TSTG	-30 ~ +100	°C	
Soldering Temperature	TSOL	260	°C	

3) Electro-Optical Characteristics [Ta=25°C]

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	15.0	20.0		mW
Peak Wavelength	λP	IF=50mA		830		nm
Half Width	Δλ	IF=50mA		35		nm
Rise Time	tr	IF=50mA		60		ns
Fall Time	tf	IF=50mA		40		ns

4) Characteristics of Radiant Intensity [Ta=25°C]

Type	Viewing Half Angle	Radiant Intensity IF=50mA unit: mW/sr			Outer Dimension	
		Minimum	Typical	Maximum	Dimension	Figure
L830-01AU	±10°		80		Φ5	1
L830-02AU	±5°		100		Φ5	2
L830-03AU	±15°		70		Φ5	3
L830-04AU	±20°		45		Φ5	4
L830-05AU	±40°		10		Φ5	5
L830-06AU	±6°		130		Φ5	6
L830-09AU	±25°(Long)		55		Φ5	7
	±15°(Short)			Oval		
L830-31AU					Φ3	8
L830-33AU	±15°		40		Φ3	9
L830-34AU					Φ3	10
L830-36AU	±30°		20		Φ3	11
L830-41AU					Φ4	12
L830-42AU					Φ4	12

‡ Radiant Intensity is measured by Tektronix J-16.

‡ Total Radiated Power is measured by Photodyne #500.