



## LED780-xxAU Infrared LED Lamp

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 18mW with a peak wavelength at 780nm.

### 1) Specifications

- (1) Chip material AlGaAs
- (2) Peak wavelength 780nm
- (3) Package Clear epoxy resin
- (4) Lead frame Soldered

### 2) Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	190	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		1.75	1.95	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=50mA	13.0	18.0		mW
Peak Wavelength	λP	IF=50mA		780		nm
Half Width	Δλ	IF=50mA		30		nm
Rise Time	tr	IF=50mA		80		ns
Fall Time	tf	IF=50mA		80		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
L780-01AU	±10°		90		Φ5	1
L780-02AU	±5°		100		Φ5	2
L780-03AU	±15°		70		Φ5	3
L780-04AU	±20°		35		Φ5	4
L780-05AU	±40°		10		Φ5	5
L780-06AU	±6°		110		Φ5	6
L780-09AU	±25°(Long)		60		Φ5	7
	±15°(Short)				Oval	
L780-31AU					Φ3	8
L780-33AU	±15°		40		Φ3	9
L780-34AU					Φ3	10
L780-36AU	±30°		20		Φ3	11
L780-41AU					Φ4	12
L780-42AU					Φ4	12

‡ Radiant Intensity is measured by Tektronix J-16.  
‡ Total Radiated Power is measured by Photodyne #500.