



L680-__AU Infrared LED Lamp

This series of L680-__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 5mW with a peak wavelength at 680nm.

1) Specifications

- (1) Chip material AlGaAs
- (2) Peak wavelength 680nm
- (3) Package Clear epoxy resin
- (4) Lead frame Soldered

2) Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	110	mW	T _a =25°C
Forward Current	I _F	50	mA	T _a =25°C
Pulse Forward Current	I _{FP}	200	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-30 ~ +85	°C	T _a =25°C
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	260	°C	

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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		1.9	2.3	V
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =20mA	3.0	5.0		mW
Peak Wavelength	λ _P	I _F =20mA		680		nm
Half Width	Δλ	I _F =20mA		20		nm
Rise Time	t _r	I _F =20mA		80		ns
Fall Time	t _f	I _F =20mA		80		ns

4) Characteristics of Brightness [T_a=25°C]

Type	Viewing Half Angle	Radiant Intensity I _F =20mA unit: mW/sr			Outer Dimension	
		Minimum	Typical	Maximum	Dimension	Figure
L680-01AU	±10°		30		f5	1
L680-02AU	±5°		45		f5	2
L680-03AU	±15°		25		f5	3
L680-04AU	±20°		15		f5	4
L680-05AU	±40°		2		f5	5
L680-06AU	±6°		40		f5	6
L680-09AU	±25°(Long)		20		f5	7
	±15°(Short)				Oval	
L680-33AU	±15°		10		f3	9
L680-36AU	±30°		5		f3	10

‡ Radiant Intensity is measured by Tektronix J-16.

‡ Total Radiated Power is measured by Photodyne #500.