

L670-__ __V Infrared LED Lamp

This series of L670-__ __V 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 8mW with a peak wavelength at 670nm.

1) Specifications

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|---------------------|-------------------|
| (1) Chip material | AlGaAs |
| (2) Peak wavelength | 670nm |
| (3) Package | Clear epoxy resin |
| (4) Lead frame | Soldered |

2) Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	110	mW	Ta=25°C
Forward Current	IF	50	mA	Ta=25°C
Pulse Forward Current	IFP	200	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=20mA		1.8	2.3	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power	PO	IF=20mA	4.0	8.0		mW
Peak Wavelength	λP	IF=20mA		670		nm
Half Width	Δλ	IF=20mA		25		nm
Rise Time	tr	IF=20mA		80		ns
Fall Time	tf	IF=20mA		80		ns

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

Type	Viewing Half Angle	Radiant Intensity IF=20mA unit: mW/sr			Outer Dimension	
		Minimum	Typical	Maximum	Dimension	Figure
L670-01V	±10°		45		Φ5	1
L670-02V	±5°		70		Φ5	2
L670-03V	±15°		40		Φ5	3
L670-04V	±20°		25		Φ5	4
L670-05V	±40°		3		Φ5	5
L670-06V	±6°		65		Φ5	6
L670-09V	±25°(Long)		35		Φ5	7
	±15°(Short)			Oval		
L670-31V					Φ3	8
L670-33V	±15°		15		Φ3	9
L670-34V					Φ3	10
L670-36V	±30°		8		Φ3	11
L670-41V	±16°		30		Φ4	12
L670-42V	±23°		13		Φ4	12

‡ Radiant Intensity is measured by Tektronix J-16.

‡ Total Radiated Power is measured by Photodyne #500.