

PRELIMINARY

L735-06-55

Infrared LED Lamp for High Current Drive

L735-06-55 is an AlGaAs LED mounted on a lead frame with a clear epoxy lens.

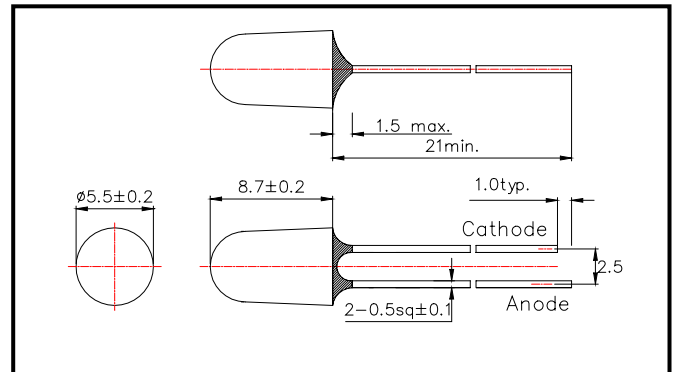
On forward bias, it emits a spectral band of radiation which peaks at 735nm.

These devices are intended to be operated at pulsed current of 1A under maximum 4.3V for stable long life.

◆ Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L735-06-55
3) Chip	
(1) Chip Material	AlGaAs
(2) Chip Dimension	550umx550um
(3) Peak Wavelength	735nm 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	P _D	170	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	1000	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Operating Temperature	T _{OPR}	-30 ~ +85	°C	
Storage Temperature	T _{STG}	-30 ~ +100	°C	
Soldering Temperature	T _{SOL}	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 [T_a=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.60	1.70	V
	V _{FP}	I _F =1000mA		3.5	4.3	
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =50mA	16.0	20.0		mW
Radiant Intensity	I _E	I _F =50mA		110		mW/sr
	I _{EP}	I _{FP} =1000mA		2200		
Peak Wavelength	λ _P	I _F =50mA	720	735	750	nm
Half Width	Δλ	I _F =50mA		35		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±8		deg.
Rise Time	t _r	I _F =50mA		80		ns
Fall Time	t _f	I _F =50mA		80		ns

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.