Marubeni

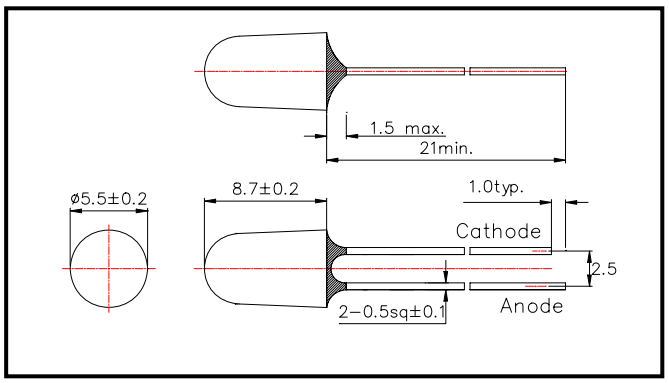
L780-06-55 Infrared LED Lamp for High Current Drive

L780-06-55 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 780nm. These devices are intended to be operated at pulsed current of 1A under maximum 4.0V for stable long life.

♦Specifications

1) Product Name	Infrared LED Lamp
2) Type No.	L780-06-55
3) Chip	
(1) Chip Material	AlGaAs
(2)Chip Dimension	550umx550um
(3) Peak Wavelength	780nm 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	Ta=25°C
Forward Current	I_F	100	mA	Ta=25°C
Pulse Forward Current	I_{FP}	1000	mA	Ta=25°C
Reverse Voltage	V_R	5	V	Ta=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 [Ta=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		3.3	4.0	
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	765	780	795	nm
Half Width	$\Delta\lambda$	I_F=50mA		35		nm
Viewing Half Angle	$\theta_{1/2}$	I_F=50mA		±6		deg.
Rise Time	tr	I_F=50mA		80		ns
Fall Time	tf	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.

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