

# L880-05-55-2D

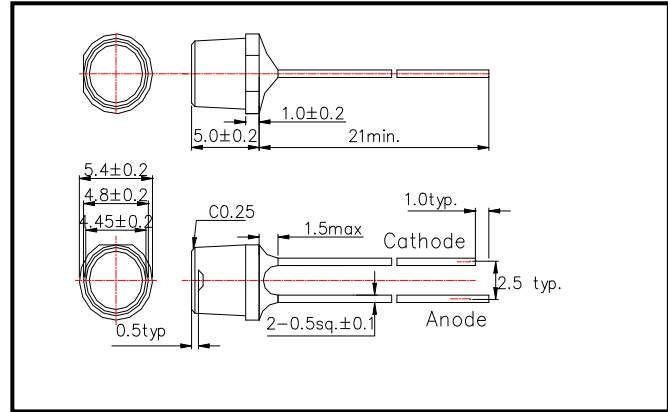
## Infrared LED Lamp

L880-05-55 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 880nm. These devices are intended to be operated at pulsed current of 2A under maximum 4.0V.

### ◆ Specifications

- 1) Product Name      Infrared LED Lamp  
 2) Type No.          L880-05-55-2D  
 3) Chip  
 (1) Chip Material      AlGaAs  
 (2) Peak Wavelength 880nm typ.  
 4) Package  
 (1) Type              Φ5mm clear molding  
 (2) Resin Material    Epoxy Resin  
 (3) Lead Frame      Soldered

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	P <sub>D</sub>	150	mW
Forward Current	I <sub>F</sub>	100	mA
Pulse Forward Current	I <sub>FP</sub>	2000	mA
Reverse Voltage	V <sub>R</sub>	5	V
Junction Temperature	T <sub>J</sub>	100	°C
Thermal Resistance	R <sub>thjp</sub>	340	K/W
Operating Temperature	T <sub>OPR</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +100	°C
Soldering Temperature	T <sub>SOL</sub>	265	°C

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

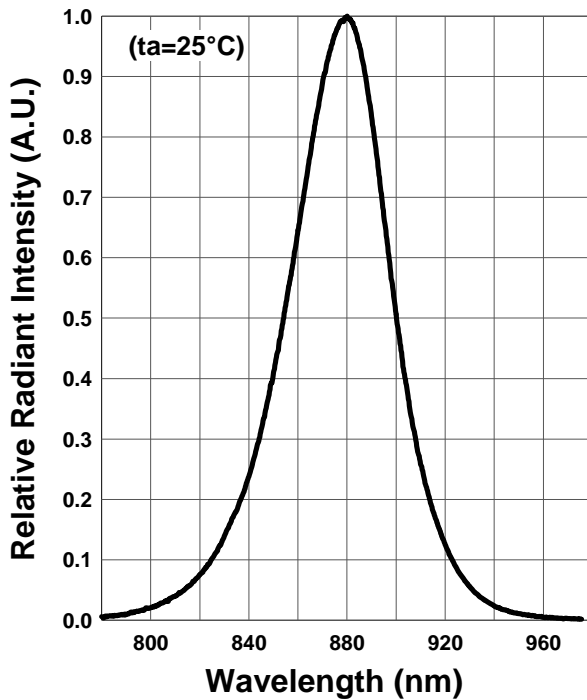
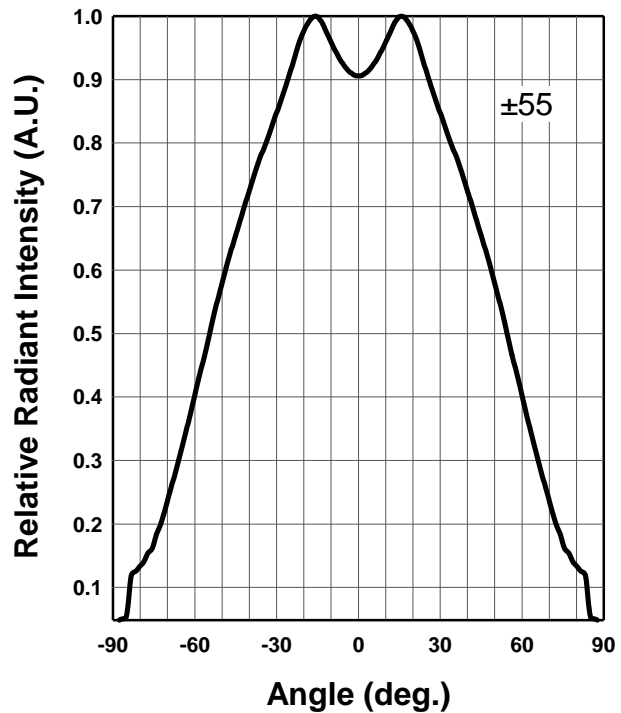
‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

### ◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA		1.45		V
	V <sub>FP</sub>	I <sub>FP</sub> =2000mA		4.0		
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =50mA	13.0	18.0		mW
		I <sub>FP</sub> =2000mA		720		
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =50mA		7.0		mW/sr
		I <sub>FP</sub> =2000mA		280		
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =50mA	870	880	890	nm
Half Width	Δλ	I <sub>F</sub> =50mA		45		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =50mA		±55		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =50mA		30		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =50mA		30		ns

‡Total Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Tektronix J-6512.

**Relative Spectral Emission****Radiation Characteristics****Disclaimer**

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements. Product data and parameters may vary by user application and over time.

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