

L780-09AU

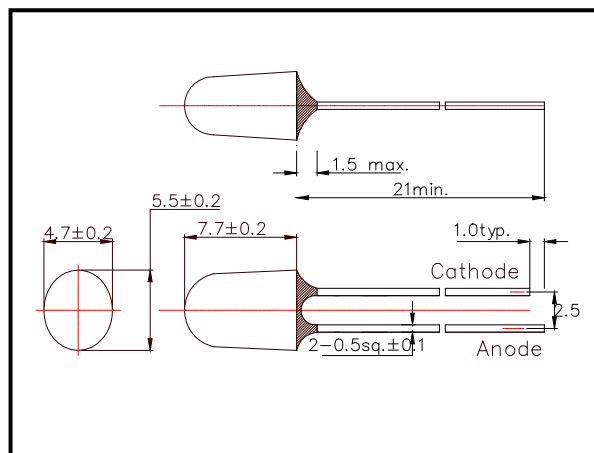
Infrared LED Lamp

L780-09AU 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.

Specifications

- 1) Product Name Infrared LED Lamp
- 2) Type No. L780-09AU
- 3) Chip
- (1) Chip Material AlGaAs
- (2) Peak Wavelength 780nm typ.
- 4) Package
- (1) Type Φ 5mm clear molding
- (2) Resin Material Epoxy Resin
- (3) Lead Frame Soldered (Lead Frame)

Outer dimension (Unit: mm)



Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	P _D	190	mW
Forward Current	I _F	100	mA
Pulse Forward Current	I _{FP}	500	mA
Reverse Voltage	V _R	5	V
Thermal Resistance	R _{thja}	250	K/W
Junction Temperature	T _j	120	°C
Operating Temperature	T _{OPR}	-40 ~ +100	°C
Storage Temperature	T _{STG}	-40 ~ +100	°C
Soldering Temperature	T _{SOL}	265	°C

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

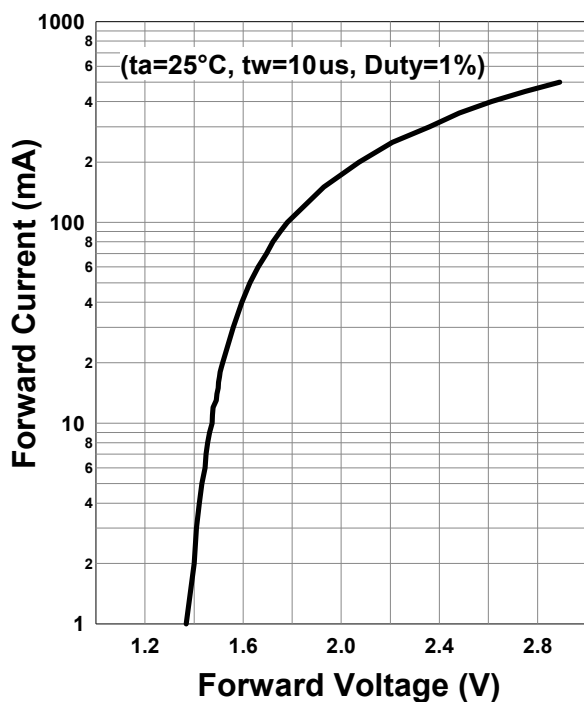
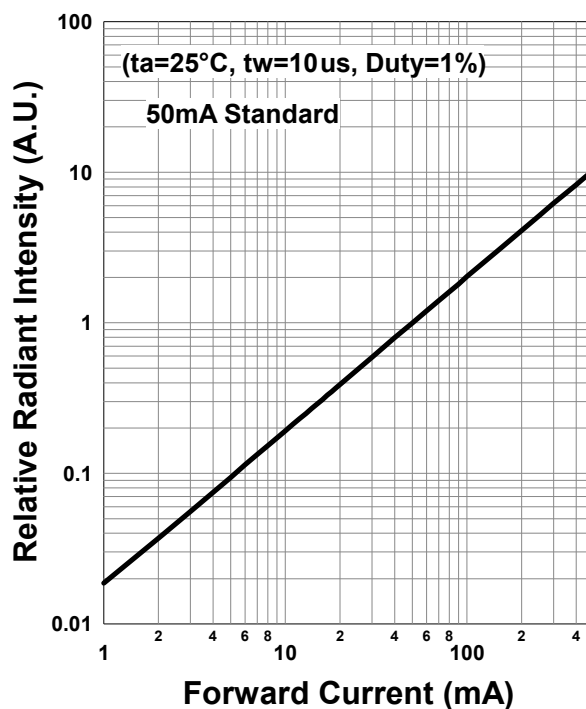
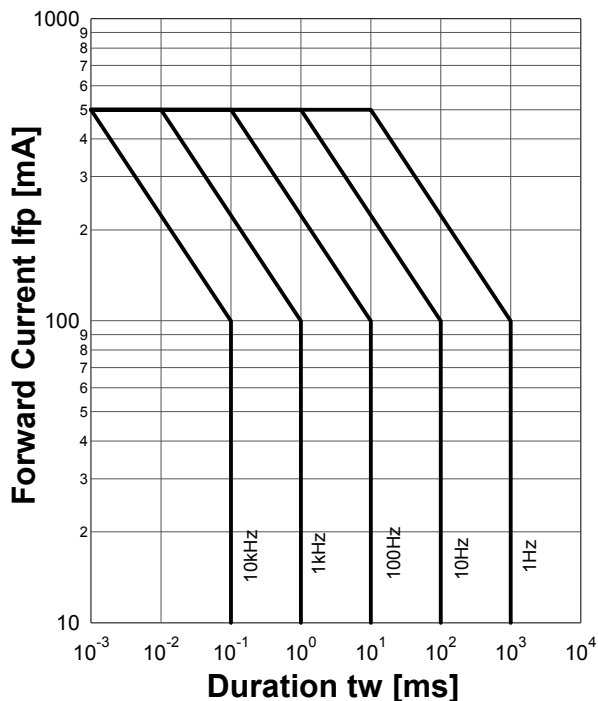
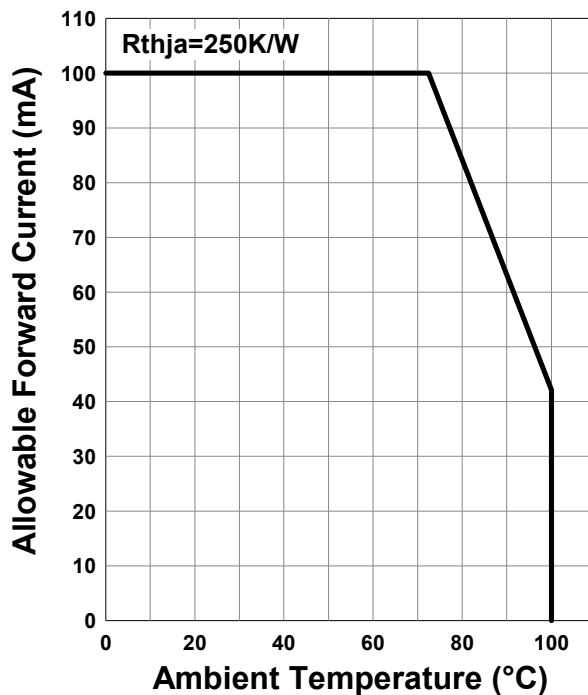
‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

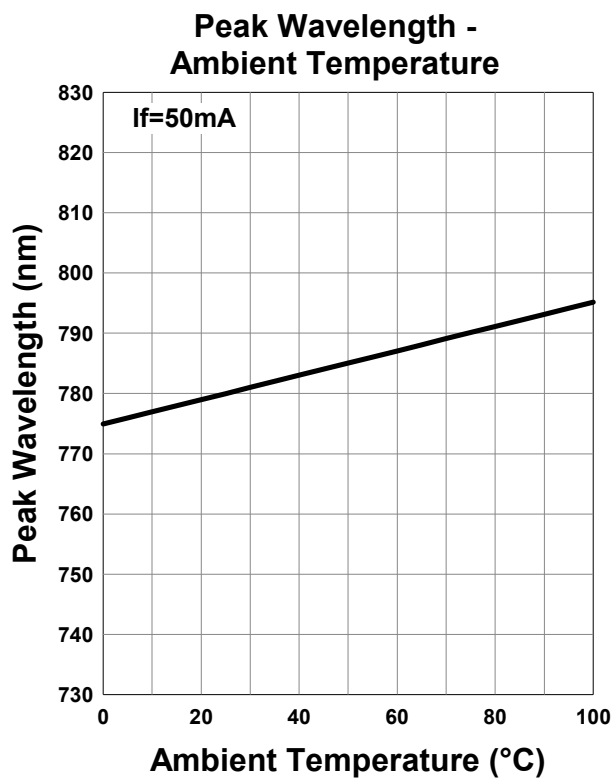
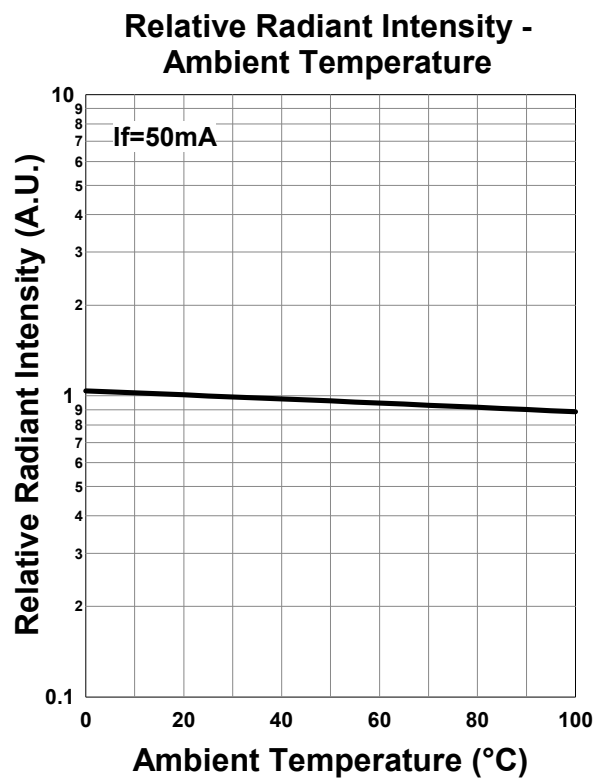
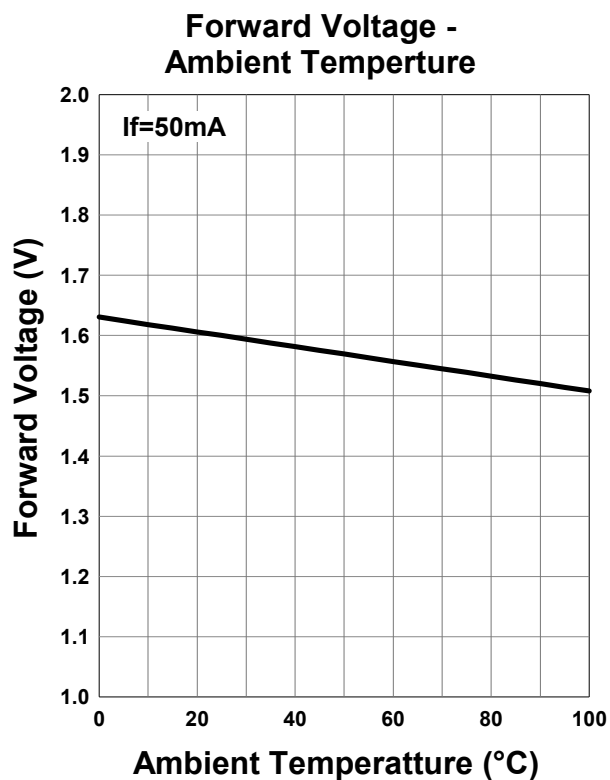
Electro-Optical Characteristics [Ta=25°C typ.]

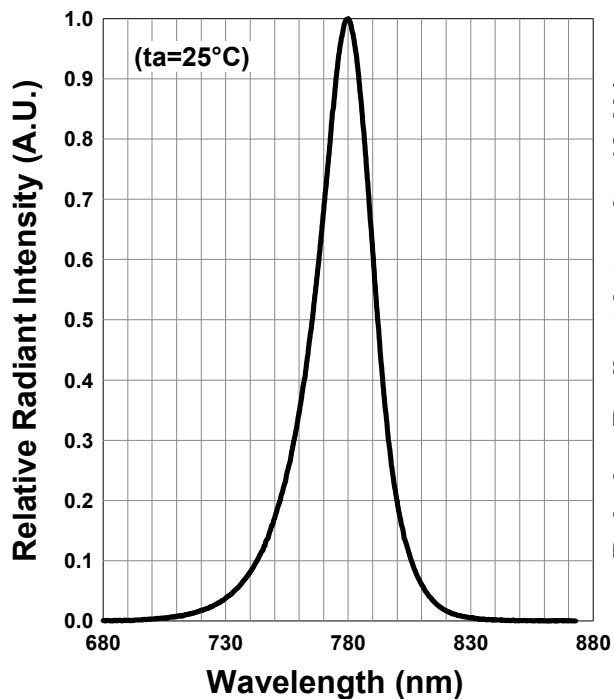
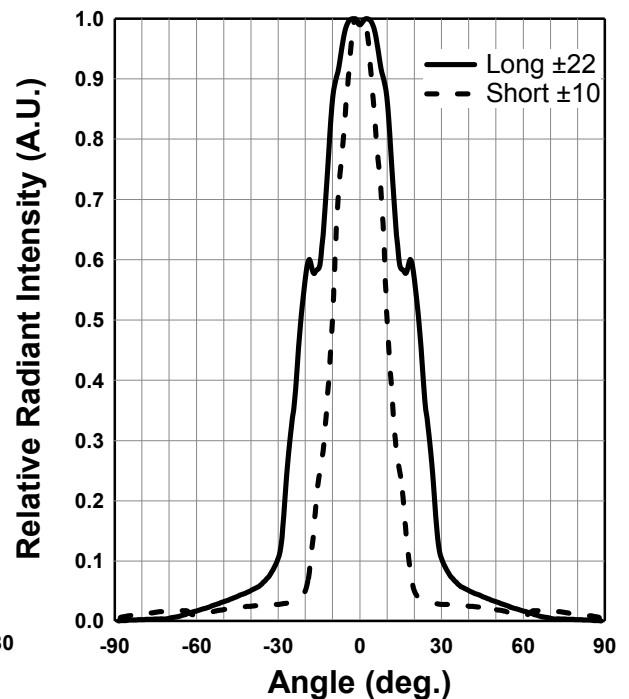
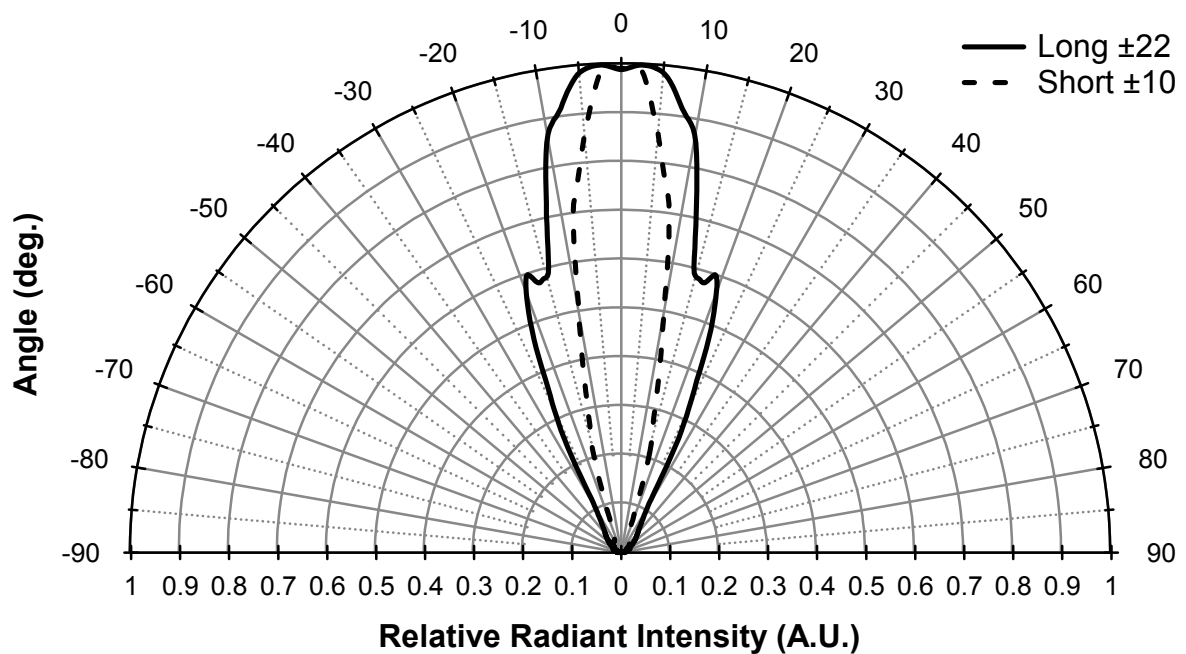
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		1.6	1.95	V
	V _{FP}	I _{FP} =500mA		2.9		
Radiated Power	P _O	I _F =50mA		28		mW
		I _{FP} =500mA		290		
Radiant Intensity	I _E	I _F =50mA		87		mW/sr
		I _{FP} =500mA		890		
Peak Wavelength	λ _P	I _F =50mA	770	780	790	nm
Half Width	Δλ	I _F =50mA		26		nm
Viewing Half Angle	Long	θ1/2	I _F 50mA	±22		deg.
	Short			±10		
Rise Time	t _r	I _F =50mA		40		ns
Fall Time	t _f	I _F =50mA		60		ns

‡Radiated Power is measured by S.3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

Forward Current - Forward Voltage

Relative Radiant Intensity - Forward Current

Forward Current - Pulse Duration

Allowable Forward Current - Ambient Temperature




Relative Spectral Emission

Radiation Characteristics

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.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.

2014.02