

L850D-02

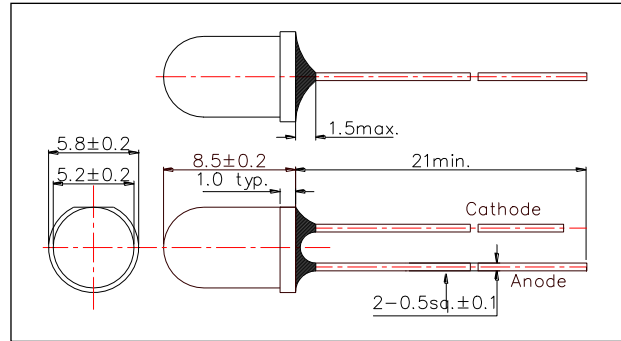
Infrared LED Lamp for High Radiant Intensity

L850D-02 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 850nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L850D-02
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 850nm typ.
4. Package
 - Type: Φ5mm clear molding
 - Resin Material: Epoxy Resin
 - Lead Frame: Soldered(Lead Free)

Outer Dimension (Unit:mm)



Absolute Maximum Ratings [Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	200	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	250	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature**	TSOL	250	°C

* Duty=1% and Pulse Width=10µs.

** Soldering condition must be completed within 5 second at 250 °C.

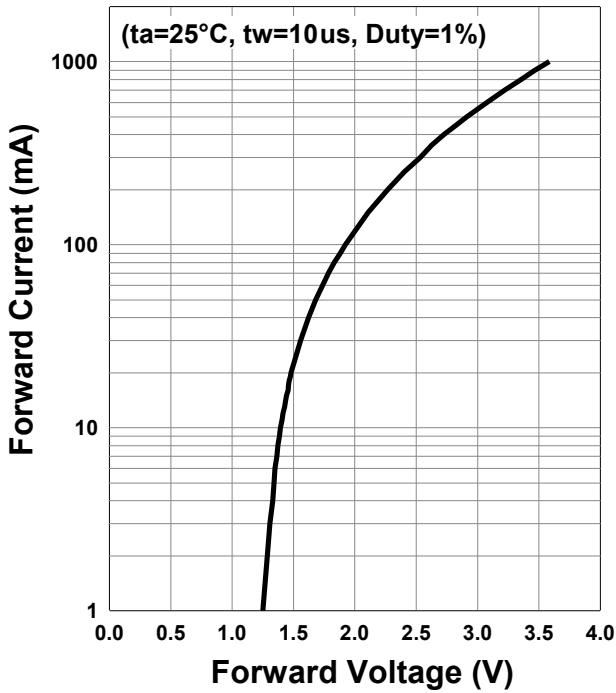
Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.7	2.0	V
	VFP	IFP=1A		3.6		
Radiated Power*	PO	IF=50mA	16	22		mW
		IFP=1A		340		
Radiant Intensity**	IE	IF=50mA		250		mW/sr
		IFP=1A		3900		
Peak Wavelength	λP	IF=50mA	840	850	860	nm
Half Width	Δλ	IF=50mA		25		nm
Viewing Half Angle	θ1/2	IF=50mA		±4		Deg.
Rise Time	tr	IF=50mA		30		ns
Fall Time	tr	IF=50mA		30		ns

* Measured by S3584-08

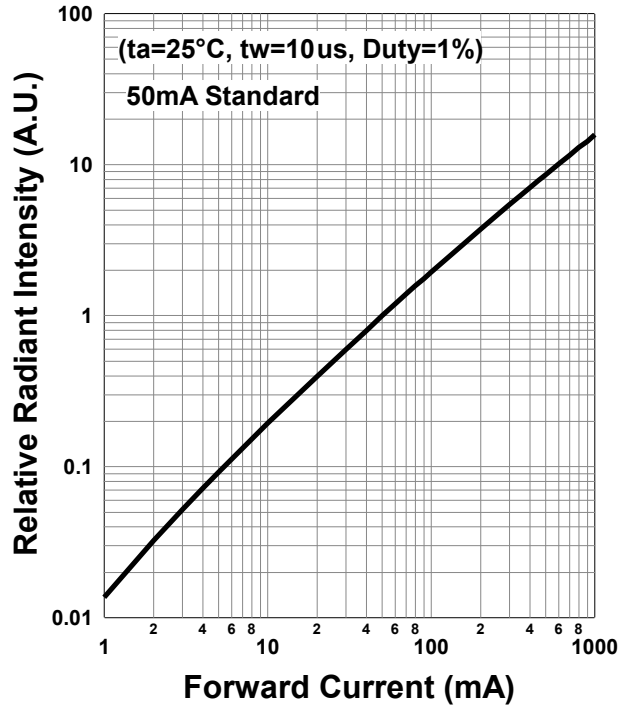
** Measured by CIE127-2007 Condition B.



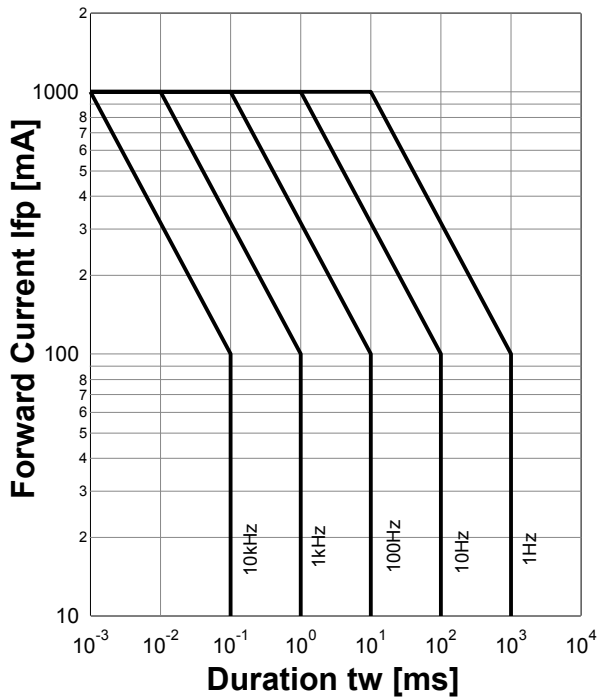
Forward Current - Forward Voltage



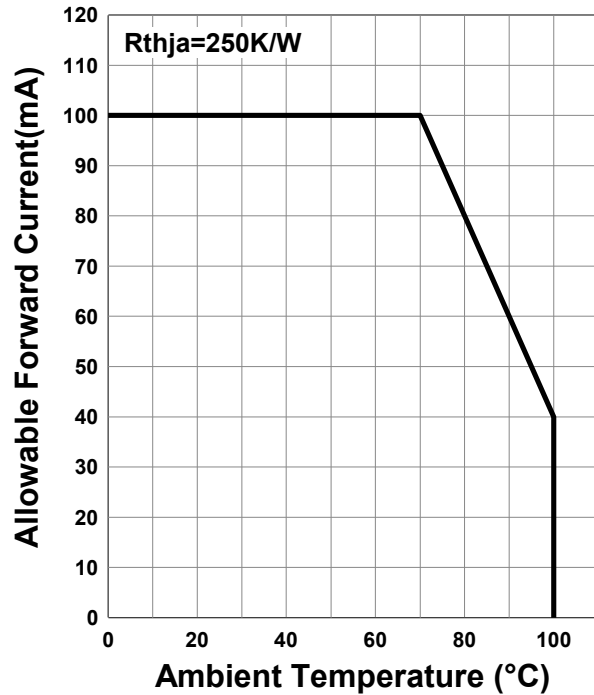
Relative Radiant Intensity - Forward Current



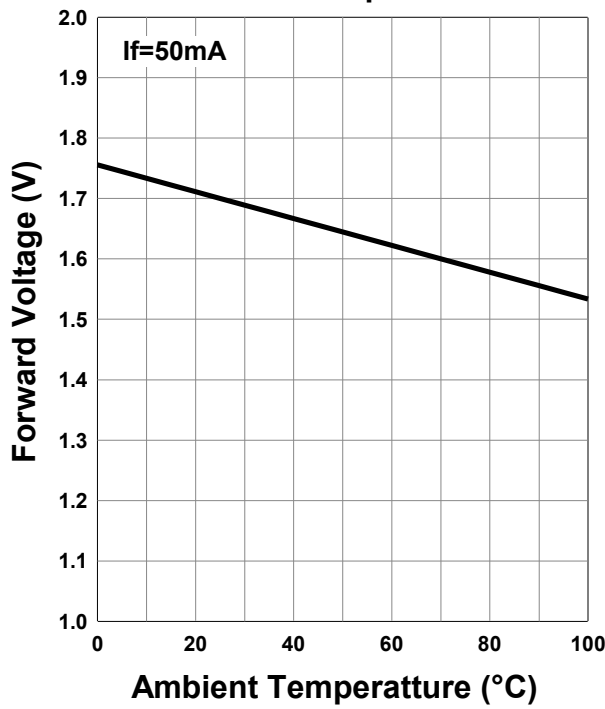
Forward Current - Pulse Duration



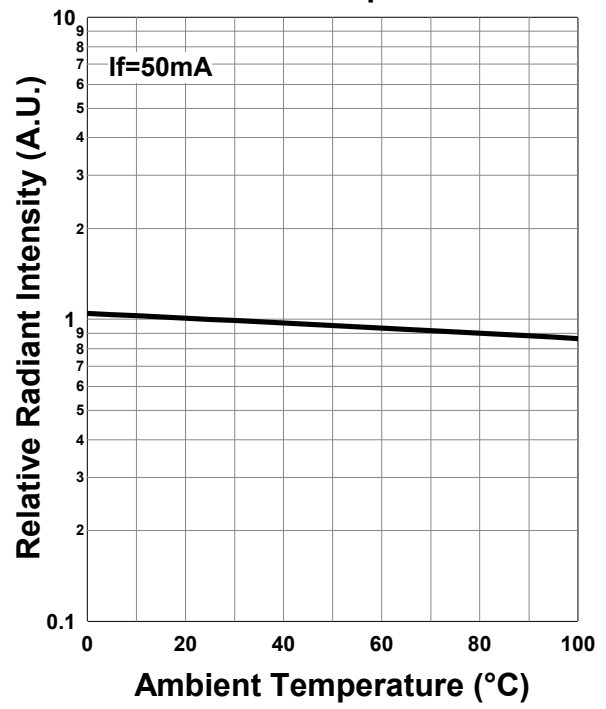
Allowable Forward Current - Ambient Temperature



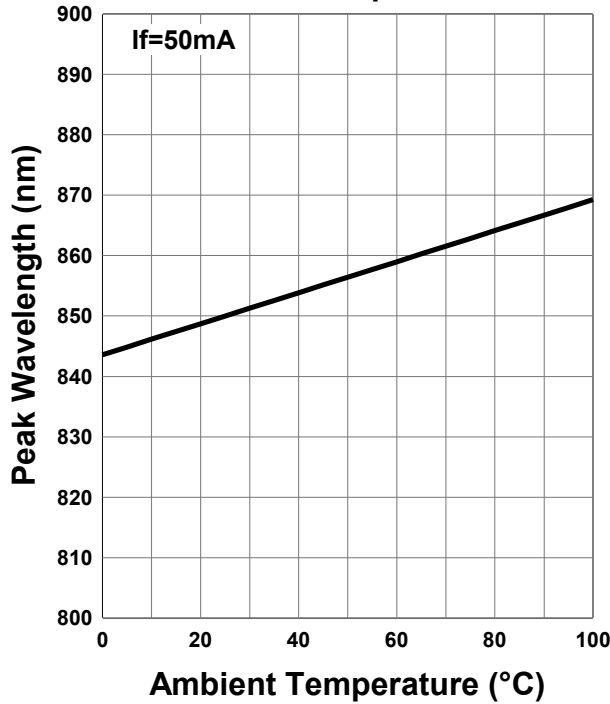
Forward Voltage - Ambient Temperature



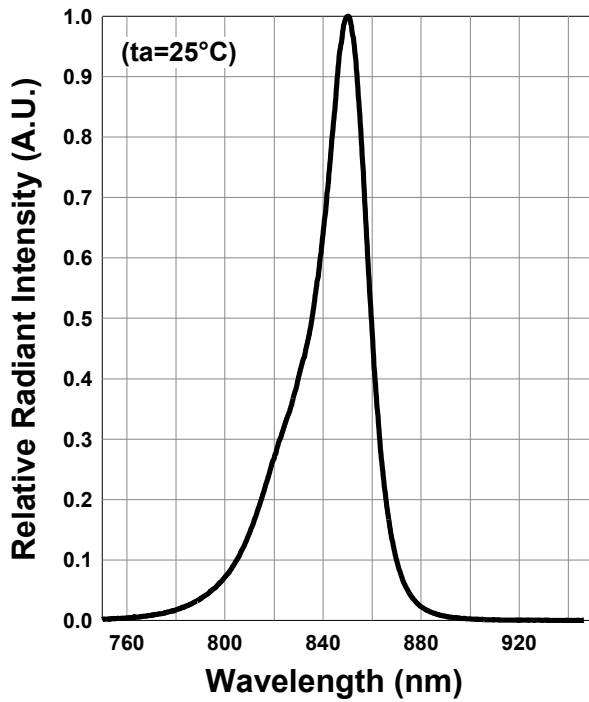
Relative Radiant Intensity - Ambient Temperature



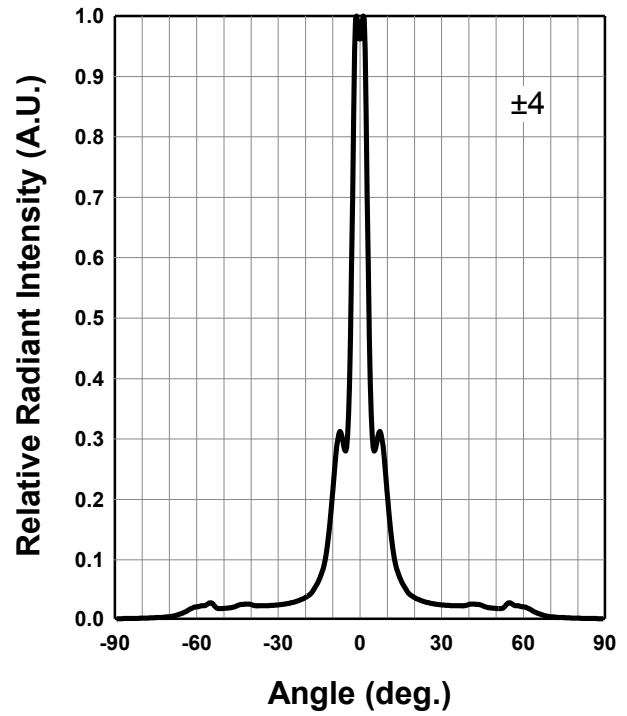
Peak Wavelength - Ambient Temperature



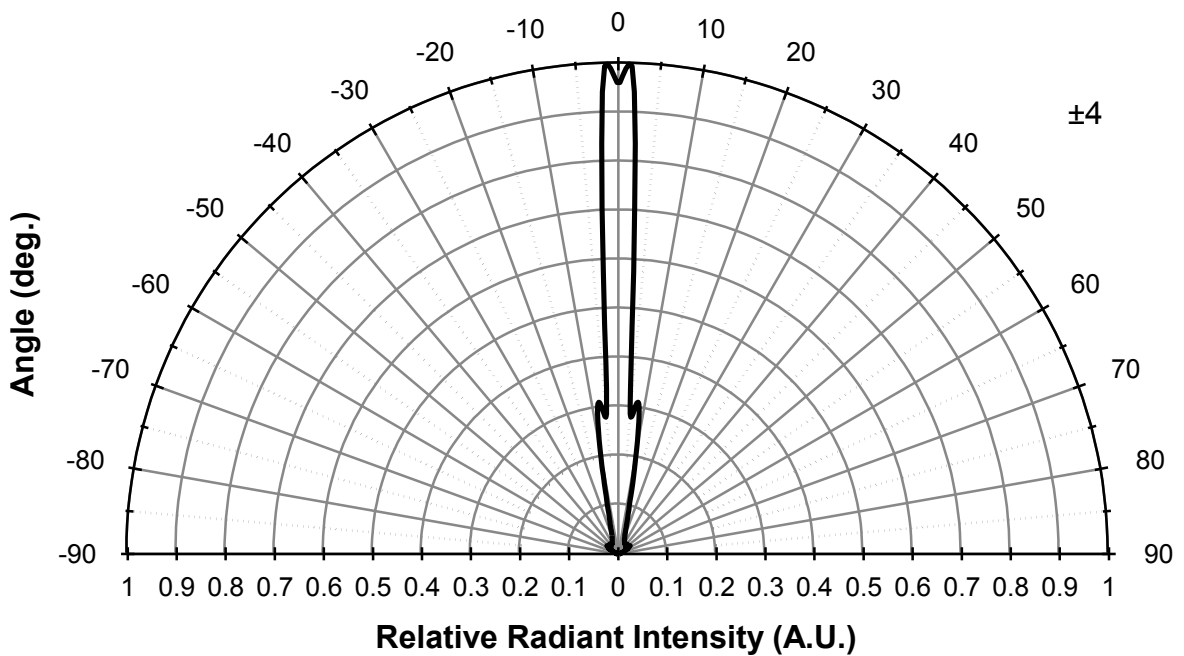
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

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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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