

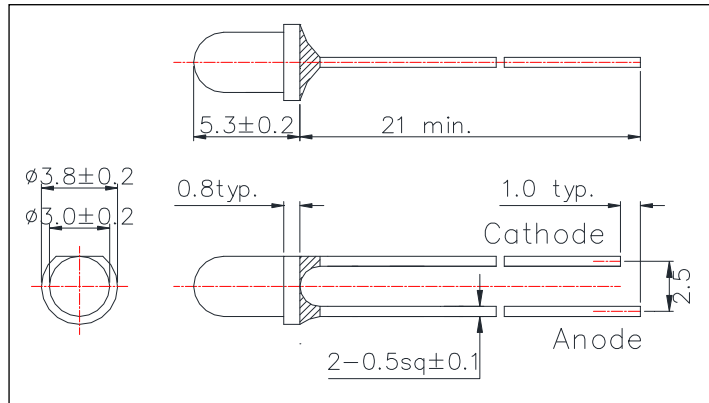
L850DS-33

Infrared LED Lamp

<Specifications>

- Chip Material: AlGaAs
- Chip Dimension: 350um x 350um
- Number of Chips: 1pcs
- Peak Wavelength: 850nm typ.
- Package Type: Φ3mm Clear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings [Tc=25°C]

Item	Symbol	Value	Unit
Power Dissipation	PD	380	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	200	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature**	TSOL	265	°C

* Duty 1% and Pulse Width=10us

** Soldering condition must be completed within 3 second at 265°C.

Electro-Optical Characteristics [Tc=25°C]

Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	IF=20mA		3.3	(3.8)	V
	VFP	IFP=200mA		5.9		
Total Radiated Power*	PO	IF=20mA		45		mW
		IFP=200mA		560		
Radiant Intensity**	IE	IF=20mA		200		mW/sr
		IFP=200mA		2500		
Peak wavelength	λP	IF=20mA	840		860	nm
Half Width	$\Delta\lambda$	IF=20mA		30		nm
Viewing Half Angle	$\theta 1/2$	IF=20mA		± 16		deg
Rise Time	tr	IF=20mA		20		ns
Fall Time	tf	IF=20mA		10		ns

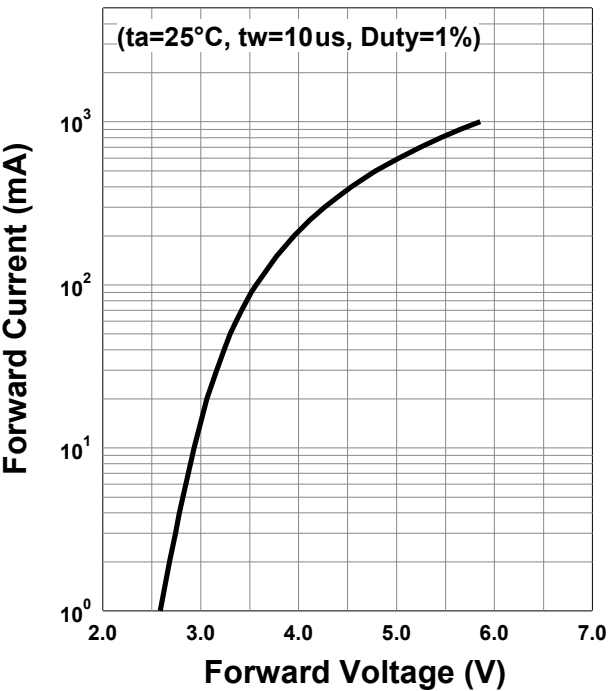
* Measured by S3584-08

** Measured by CIE127-2007 Condition B

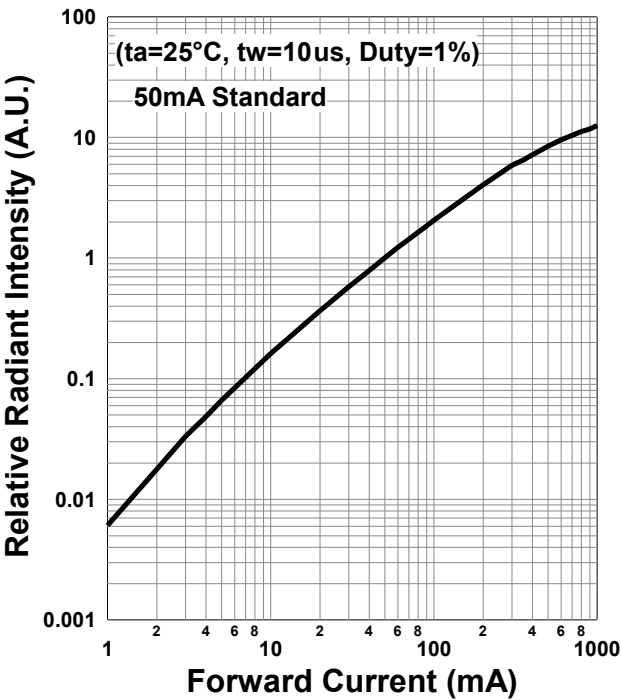


Typical Characteristic Curves

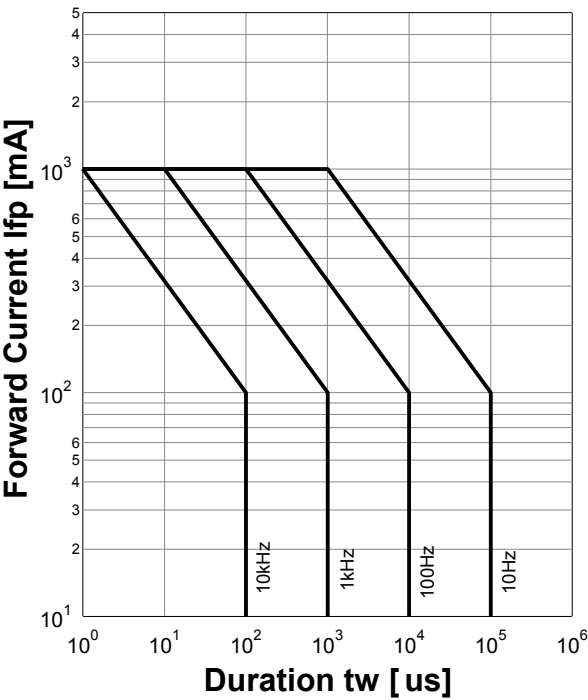
Forward Current - Forward Voltage



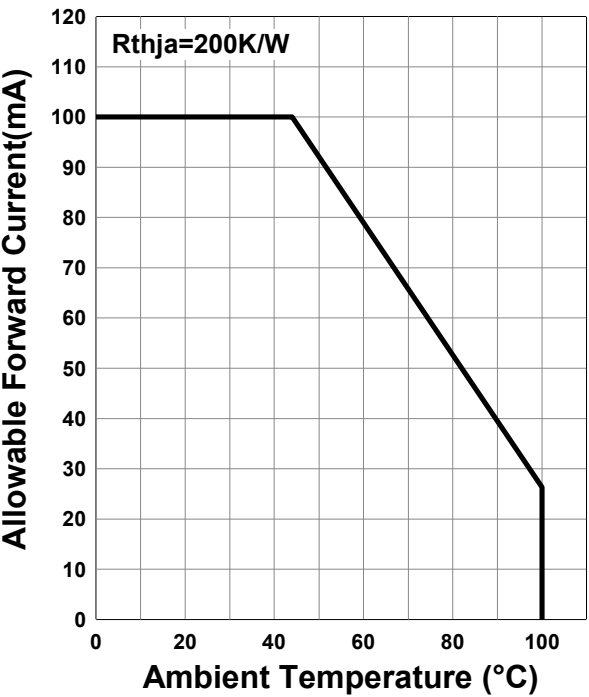
Relative Radiant Intensity - Forward Current

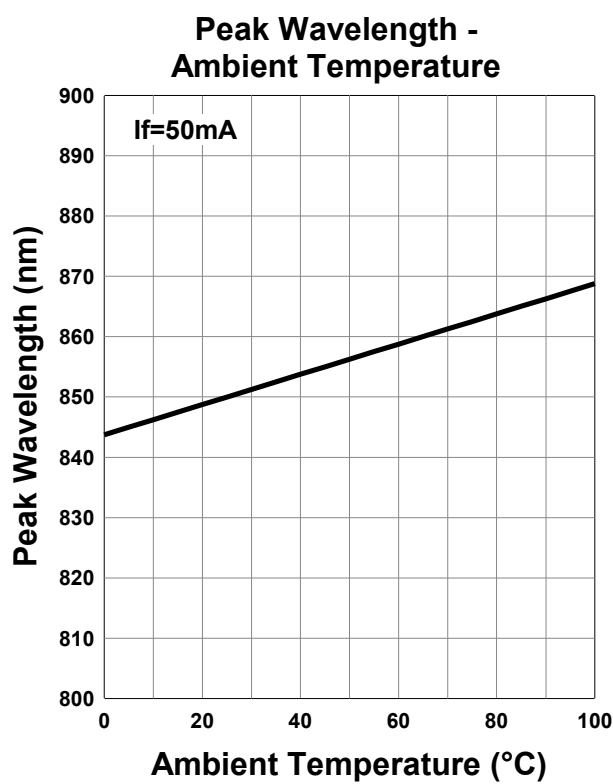
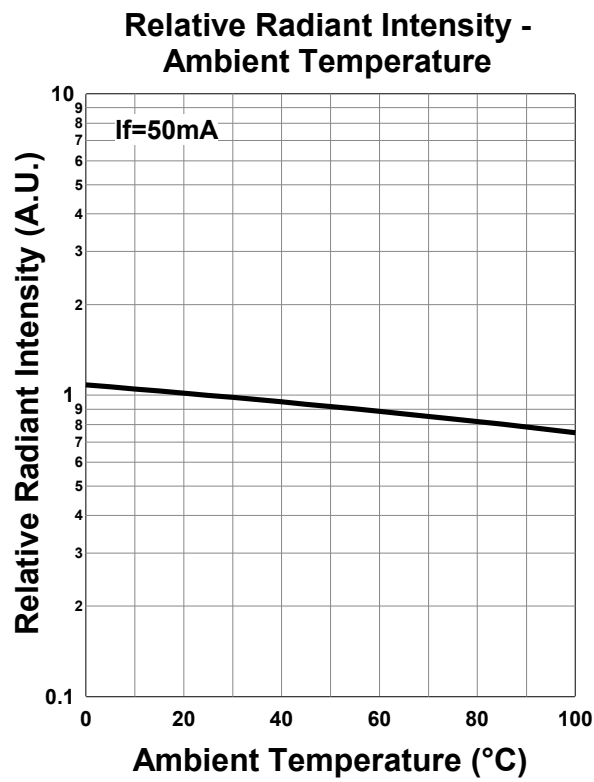
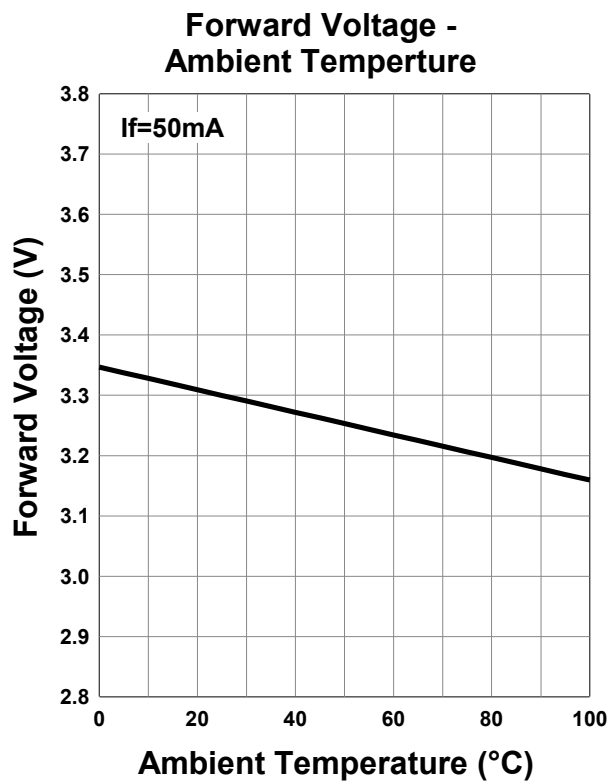


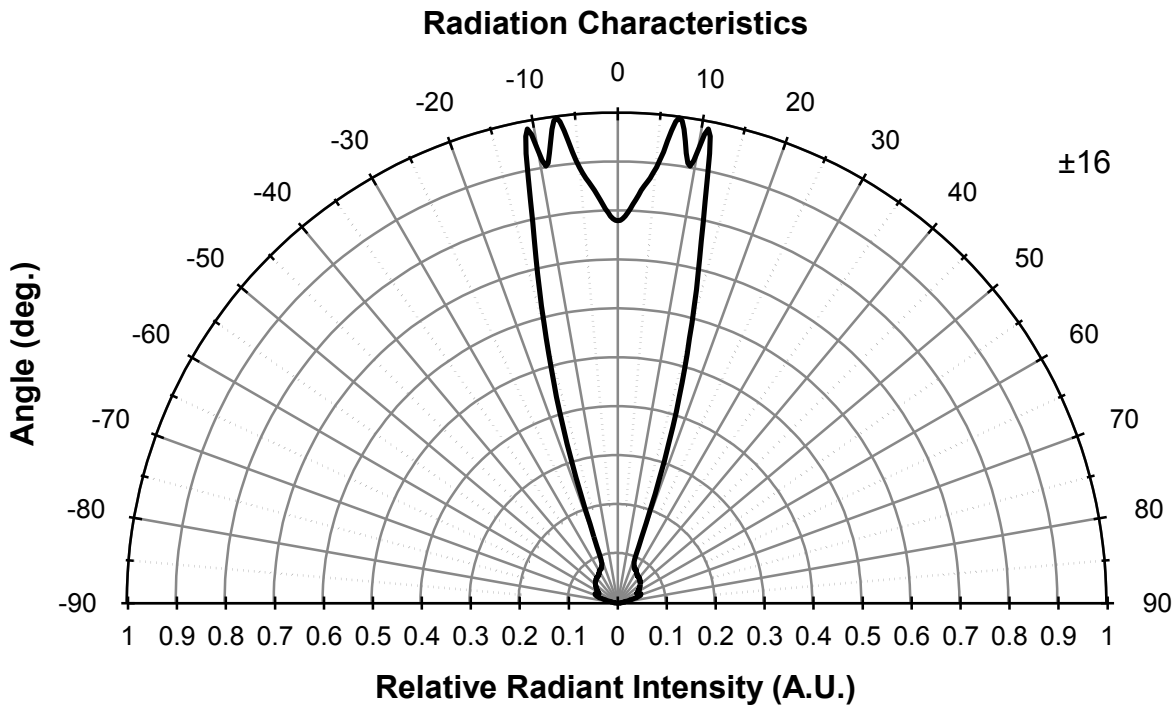
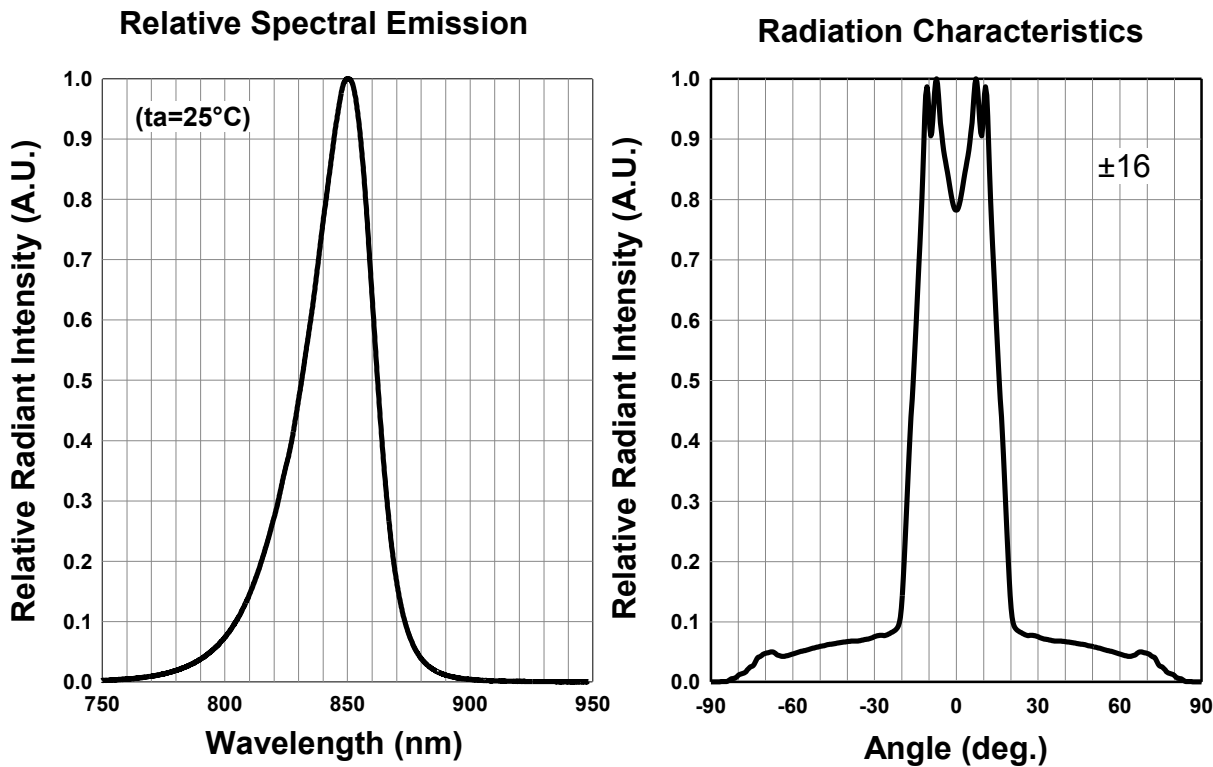
Forward Current - Pulse Duration



Allowable Forward Current - Ambient Temperature







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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