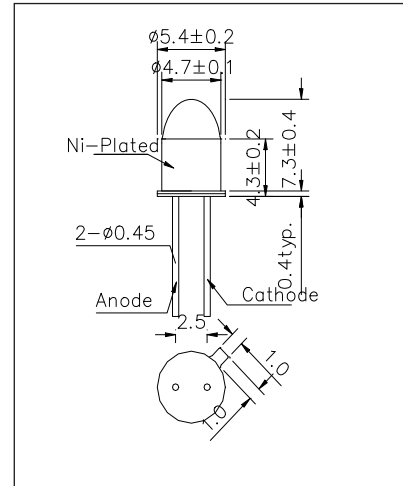


L850D-35M13N

Stem Type LED with High Output Power

L850D-35M13N is an AlGaAs LED mounted on TO-46 stem and hermetically sealed with spherical glass ball lens being designed for ultra-narrow beam uses. On forward bias it emits a spectral band of radiation, which peaks at 850nm.

Outer Dimension (Unit:mm)



<Specifications>

1. Product Name: LED Lamp
2. Type Number: L850D-35M13N
3. Chip:
 - Chip material: AlGaAs
 - Chip Dimension: 350umx350um
 - Peak Wavelength: 850nm
4. Package
 - Type: TO-46 Stem
 - Lens: Spherical Glass
 - Cap: Nickel Plated

Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	190	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	330	K/W
Junction Temperature	Tj	100	°C
Operating Temperature	TOPR	-40 ~ +80	°C
Storage Temperature	TSTG	-40 ~+100	°C
Soldering Temperature**	TSOL	265	°C

* Duty=1% and Pulse Width=10μs

** Soldering Condition must be completed within 3 seconds at 265°C

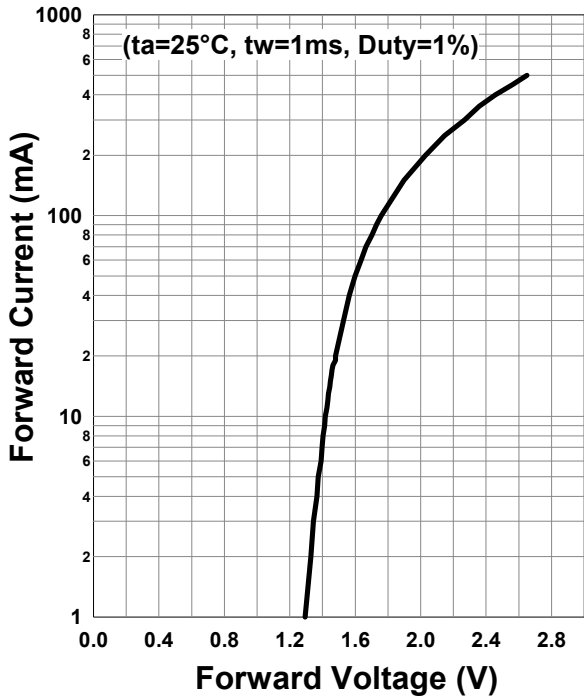
Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.6	1.9	V
Radiated Power*	PO	IF=50mA		8.8		mW
Radiant Intensity**	IE	IF=50mA		200		mW/sr
Peak Wavelength	λP	IF=50mA		850		nm
Half Width	Δλ	IF=50mA		30		nm
Viewing Half Angle	θ1/2	IF=50mA		±2		deg
Rise Time	tr	IF=50mA		90		ns
Fall Time	tr	IF=50mA		100		ns

* Measured by S3584-08

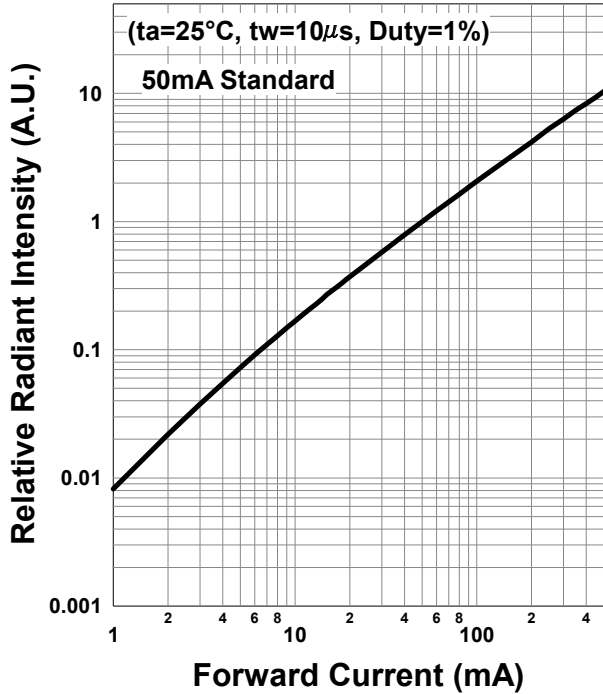
** Measured by CIE127-2007 Condition B



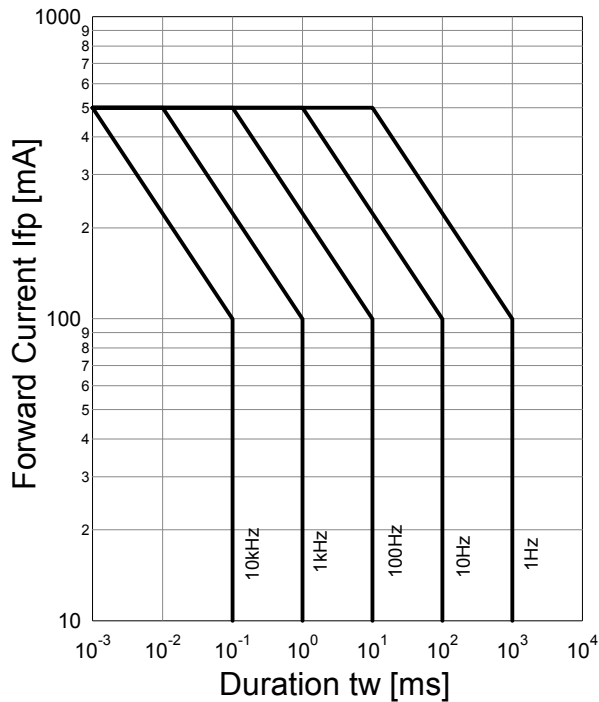
Forward Current - Forward Voltage



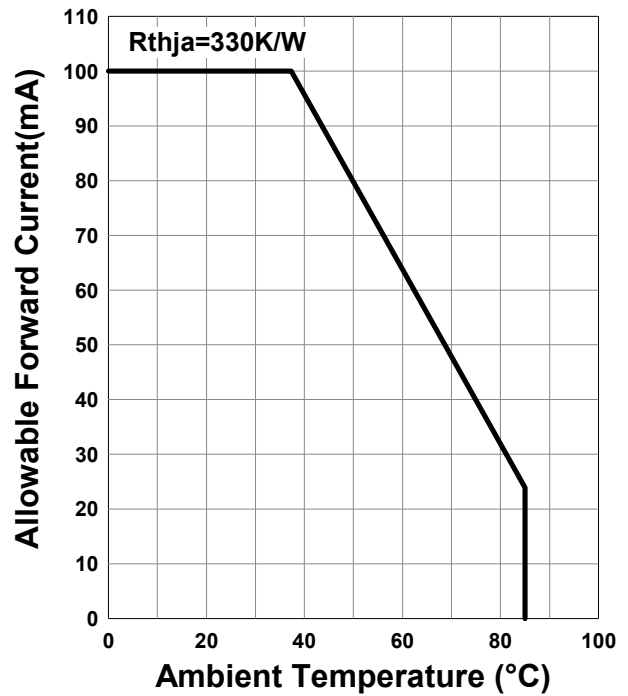
Relative Radiant Intensity - Forward Current

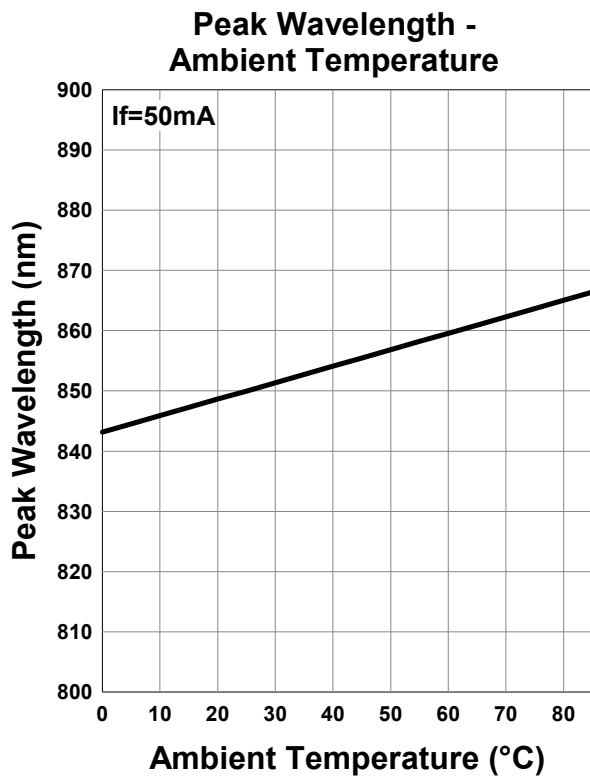
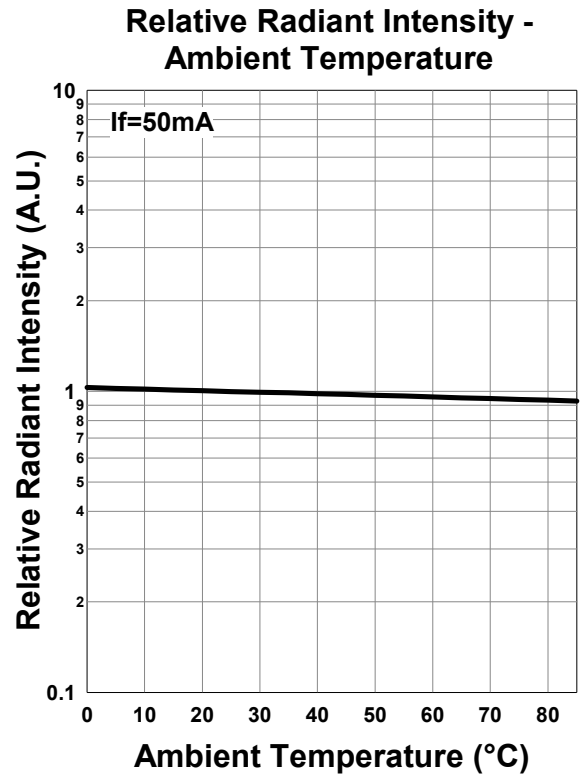
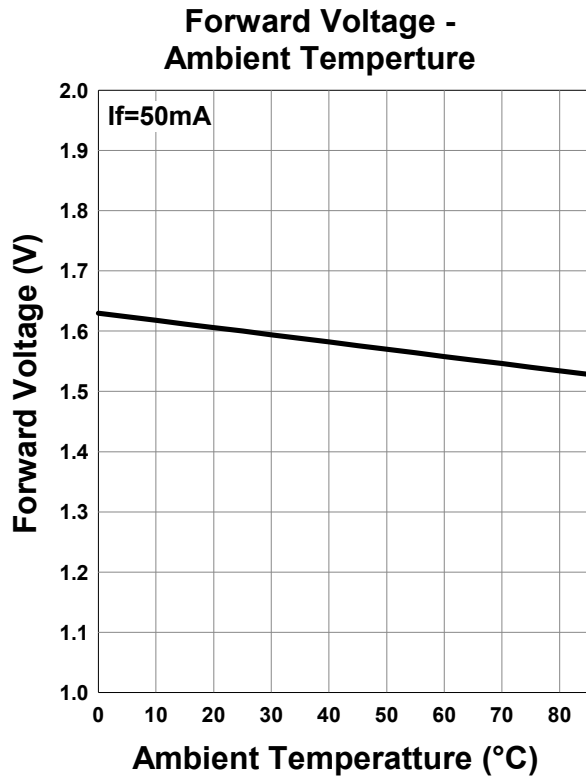


Forward Current - Pulse Duration

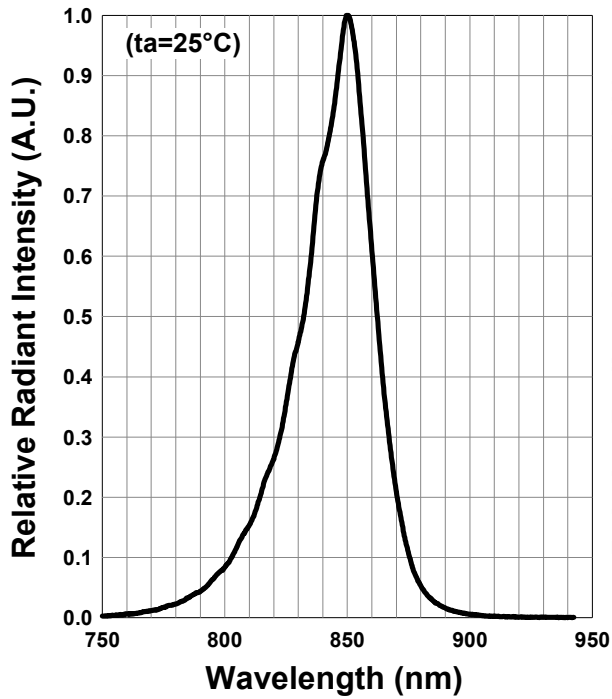


Allowable Forward Current - Ambient Temperature

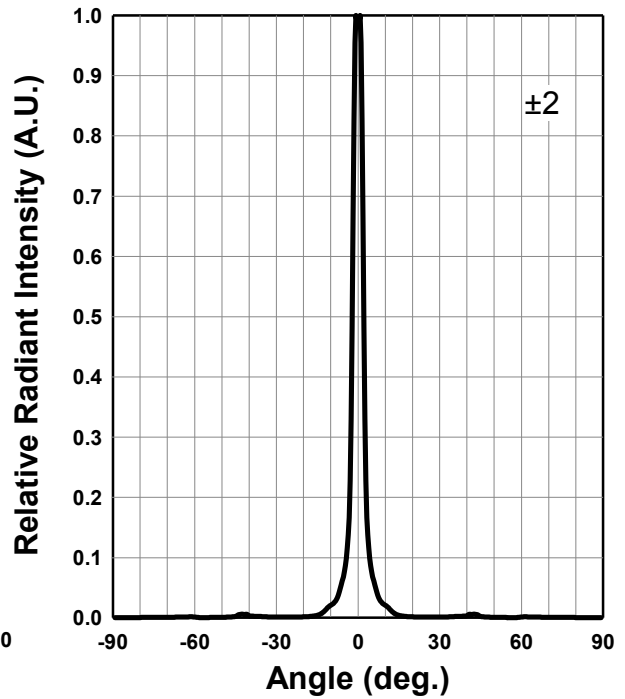




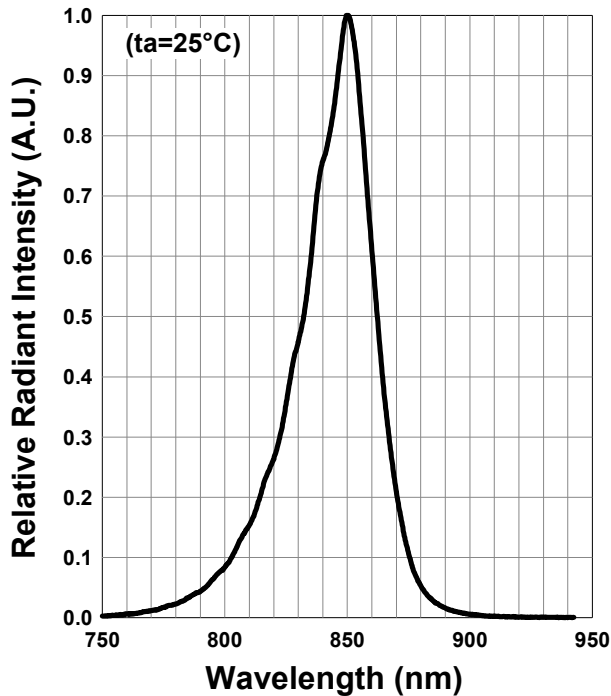
Relative Spectral Emission



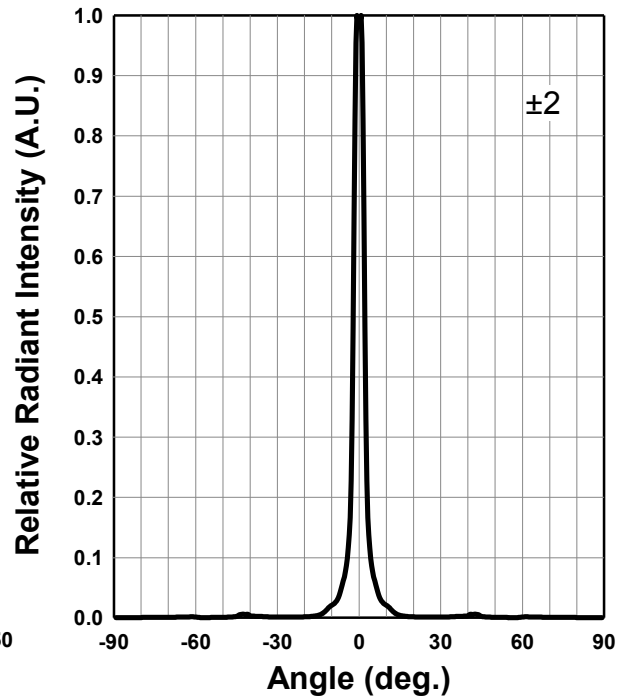
Radiation Characteristics



Relative Spectral Emission



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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