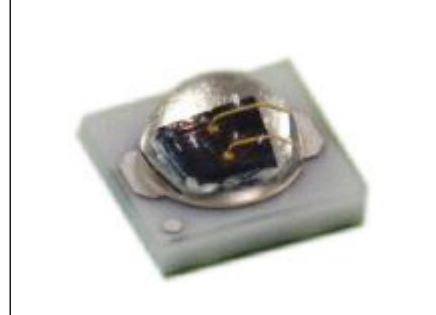


EDC850DS-1100
High Power Top LED

EDC850DS-1100 is an AlGaAs LED mounted on the 3.5x3.5mm ceramics package. These devices are available to be operated and 3000mW at IFP=3A.

<Specifications>

1. Product Name: High Power Top LED
2. Type Number: EDC850DS-1100
3. Chip:
 - Chip material: AlGaAs
 - Chip Dimension: 1000umx1000um
 - Chip Number: 1pc
 - Peak Wavelength: 850nm type
4. Package
 - Lead Frame Die: Ceramics
 - Lens: Silicone Resin



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	4000	mW
Forward Current	IF	1000	mA
Pulse Forward Current*	IFP	(5000)	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	10	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 3 seconds at 250°C

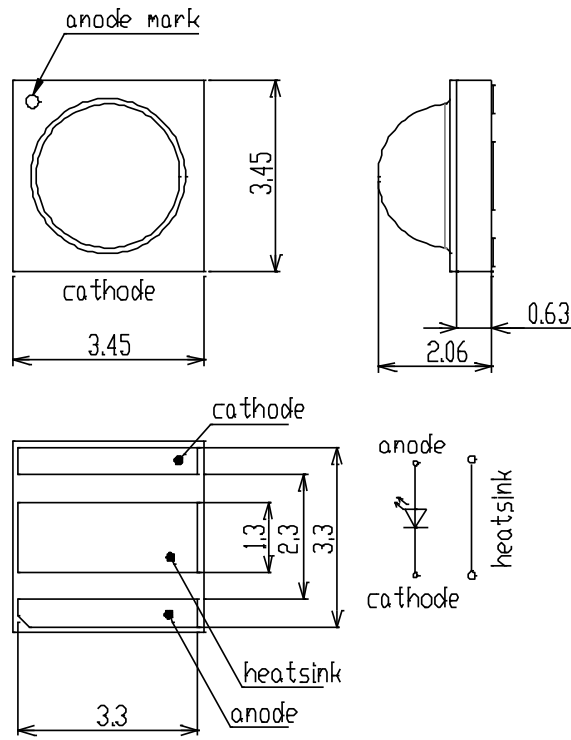
Electro-Optical Characteristics [Ta=25°C typ.]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=350mA		2.9	3.2	V
		IF=1000mA		3.0	(4.0)	
	VFP	IFP=3A		3.9		
Radiated Power*	PO	IF=1000mA	(850)	1000		mW
		IFP=3A		3000		
Radiant Intensity**	IE	IF=1000mA		460		mW/sr
		IFP=3A		1400		
Peak Wavelength	λP	IF=1000mA	840		865	nm
Half Width	Δλ	IF=1000mA		37		nm
Viewing Half Angle	θ1/2	IF=100mA		±65		deg
Rise Time	tr	IF=1000mA		40		ns
Fall Time	tr	IF=1000mA		40		ns

* Measured by S3584-08

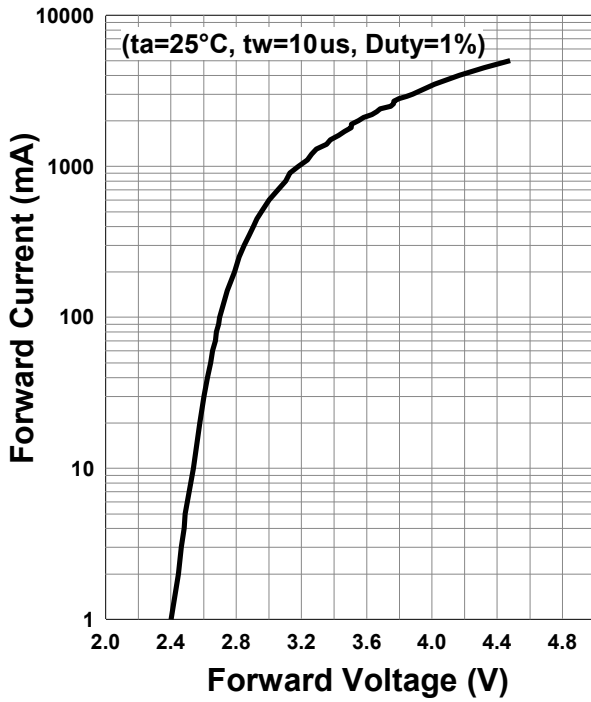
** Measured by CIE217-2007 Condition B



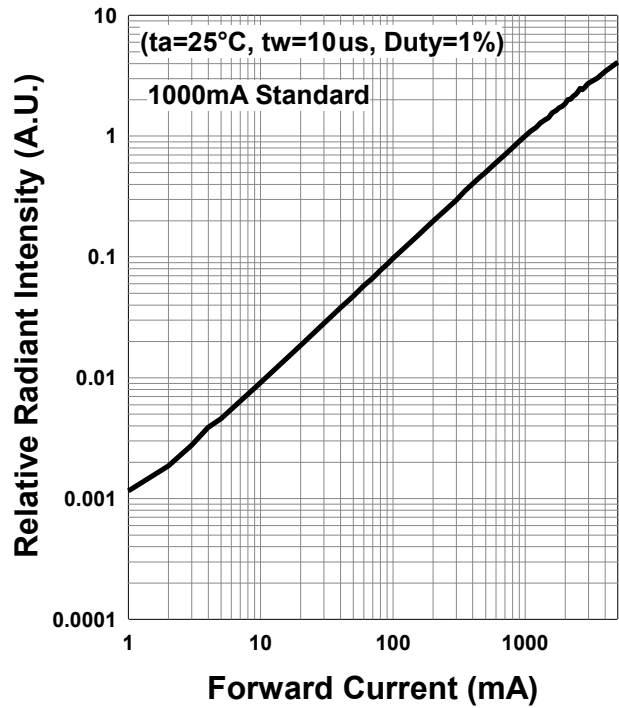
Outer dimension (Unit:mm)



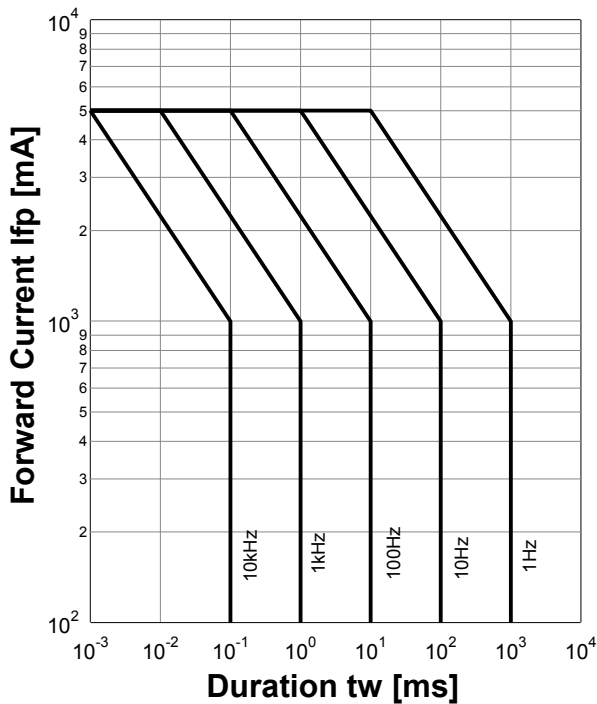
Forward Current - Forward Voltage



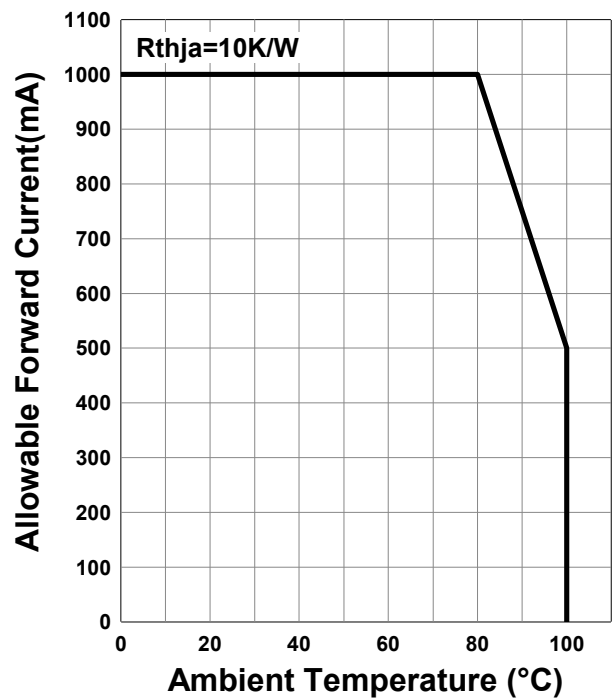
Relative Radiant Intensity - Forward Current

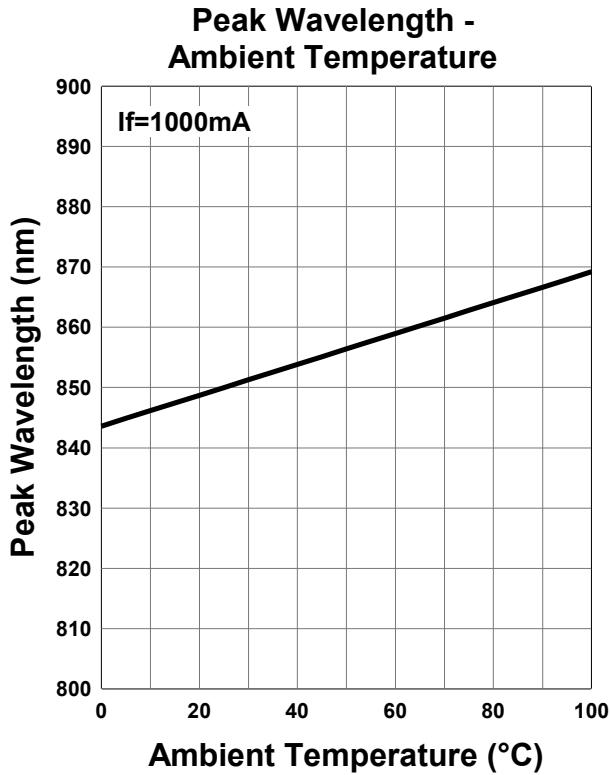
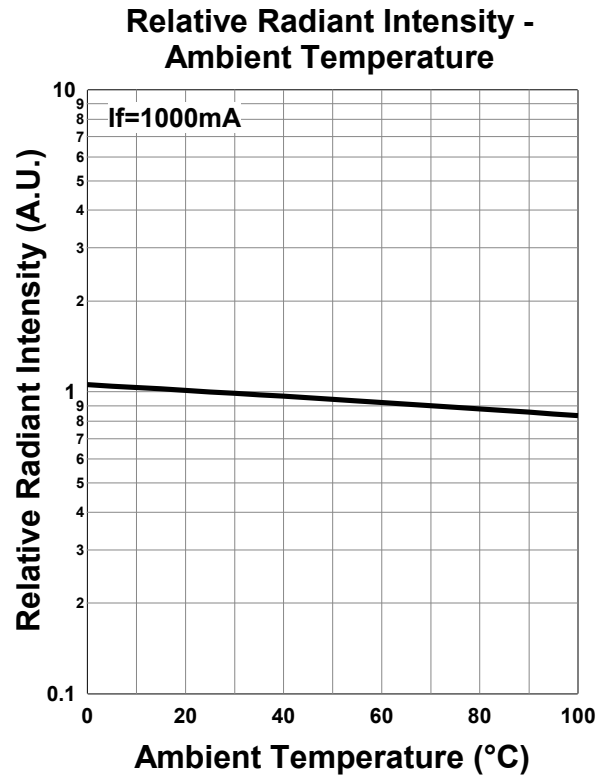
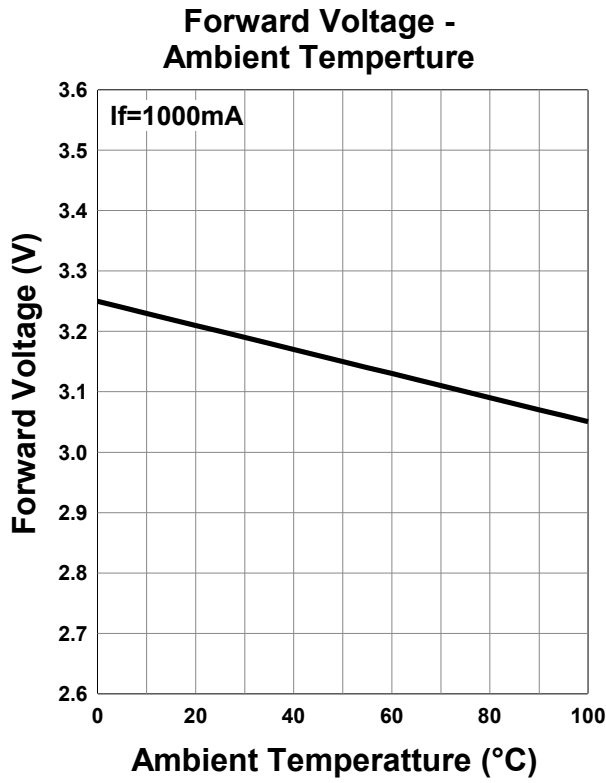


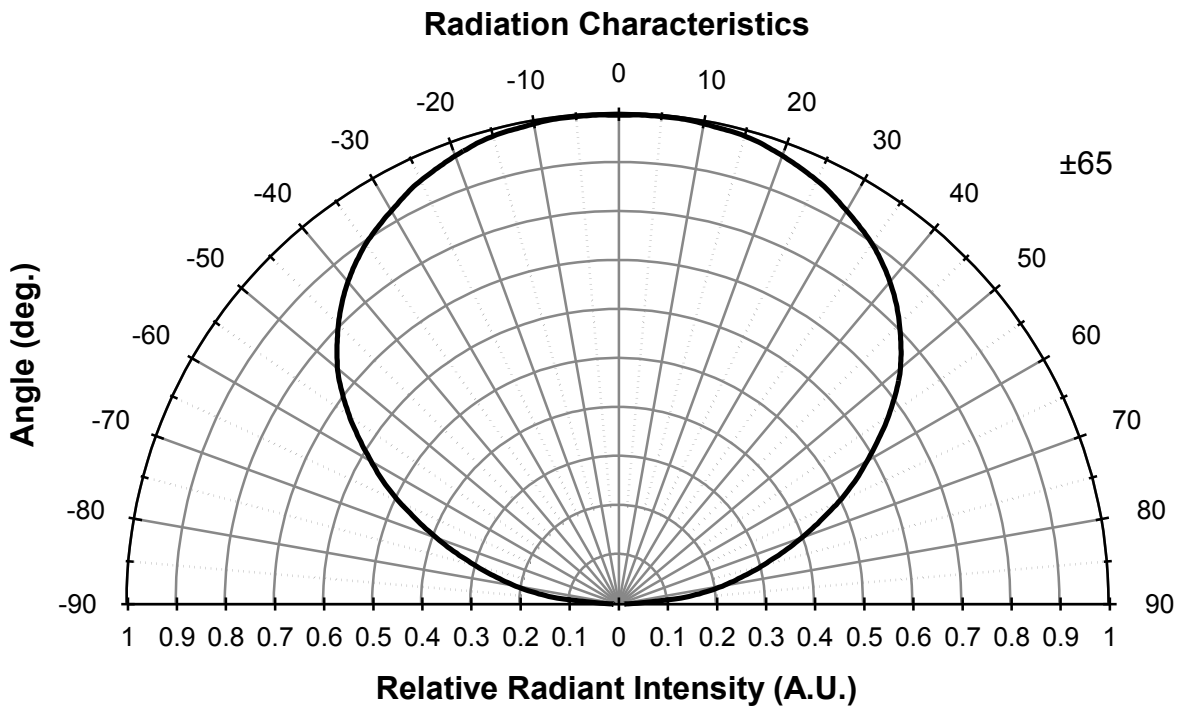
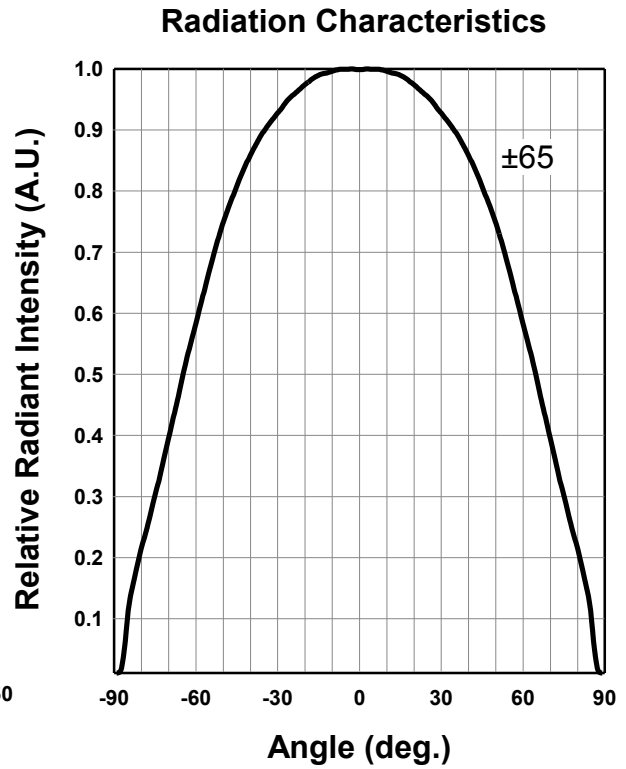
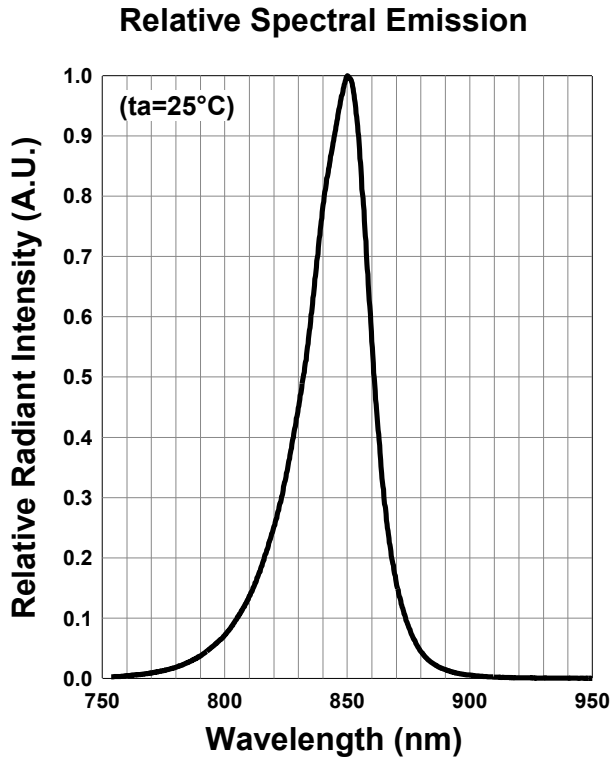
Forward Current - Pulse Duration



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.

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.

2014.07