

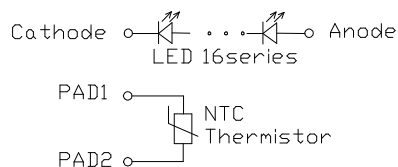
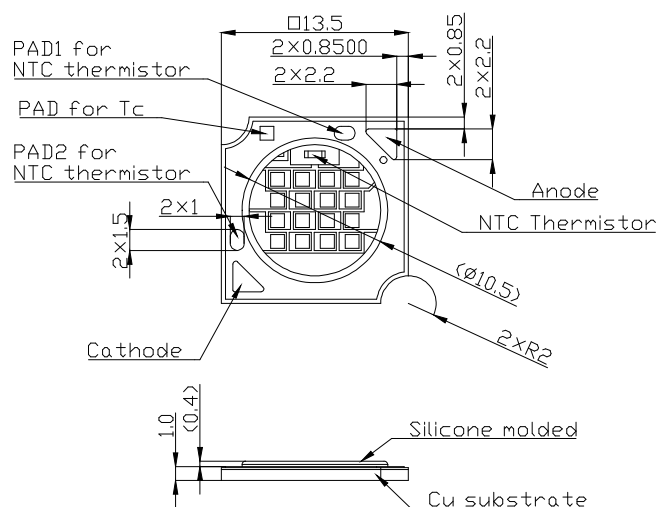


PRELIMINARY

COB1200D-16100S-X

COB type LED

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaAsP
- Chip Dimension : 1mm * 1mm
- Number of Chips : 16pcs
- Peak Wavelength : 1200nm typ.
- Lead Frame Die : Copper
- Lens : Silicone resin

Application

COB1200D-16100S-X

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	30	W
Forward Current	IF	1000	mA
Pulse Forward Current	IFP	(2000)	mA
Reverse Voltage	VR	80	V
Thermal Resistance	Rthjs	2	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	TSOL	250	°C

‡Soldering condition : Refer to technical support information on the website.

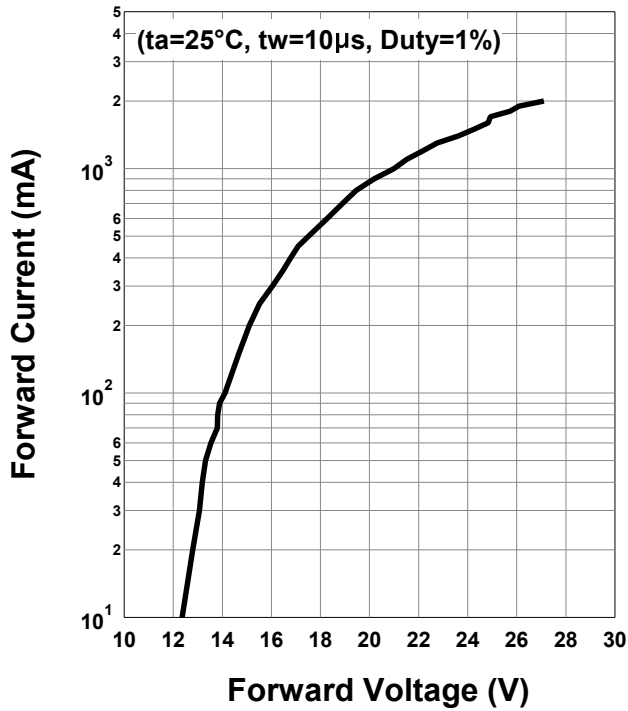
Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		21	(30)	V	IF=1A t=20ms
Reverse Current	IR			10	uA	VR=80V
Total Radiated Power	PO		(2.0)		W	IF=1A t=20ms
Peak Wavelength	λ_p	1150		1250	nm	IF=1A t=20ms
Half Width	$\Delta\lambda$		60		nm	IF=1A t=20ms
Viewing Half Angle	$\theta_{1/2}$		±65		deg.	IF=100mA
Rise Time	tr		90		ns	IF=1A
Fall Time	tf		30		ns	IF=1A

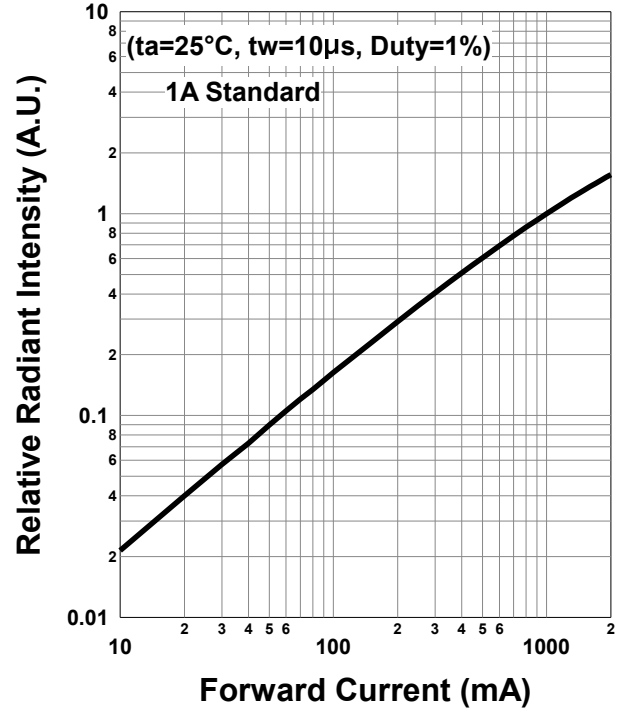
‡ Radiated Power is measured by G8370-85.

Typical Characteristic Curves

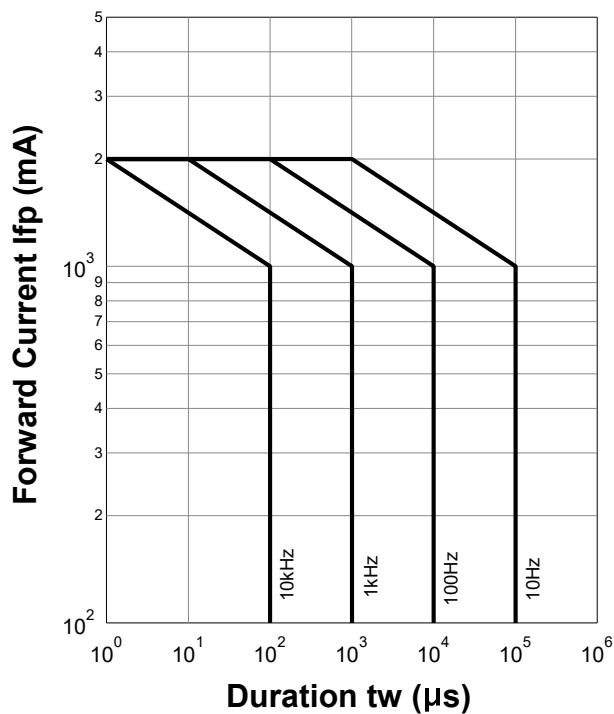
Forward Current - Forward Voltage



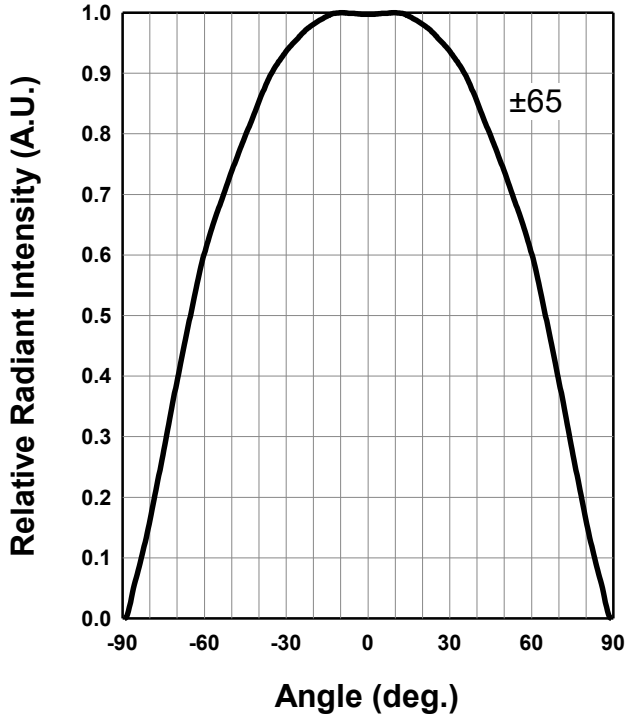
Relative Radiant Intensity - Forward Current



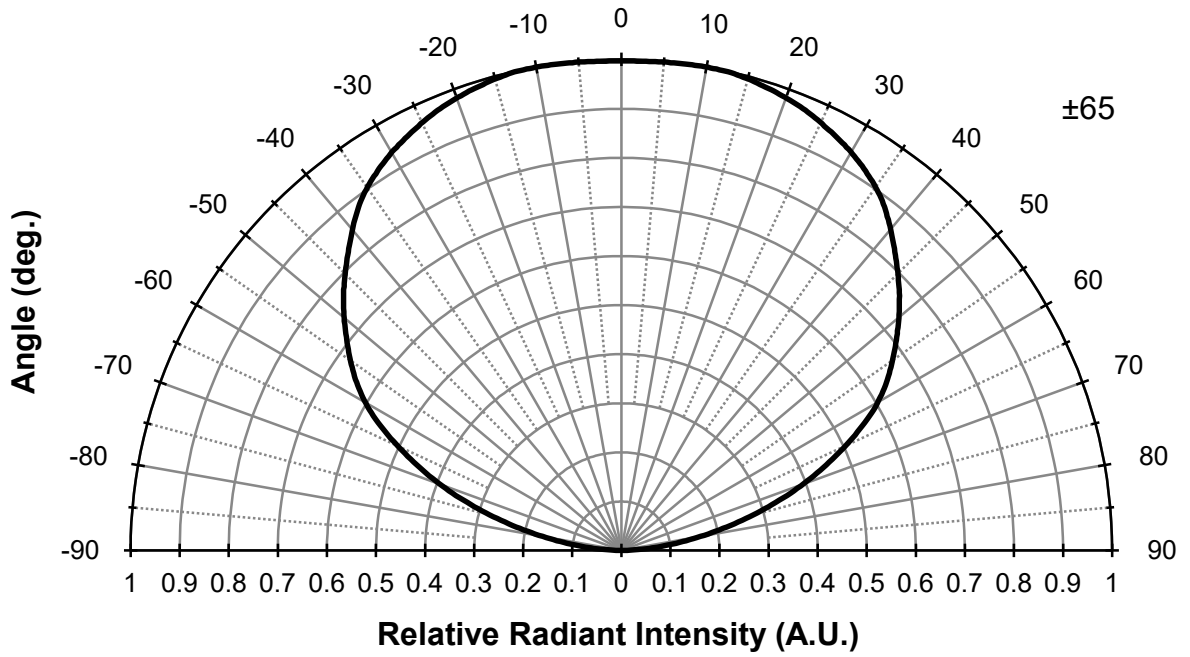
Forward Current - Pulse Duration



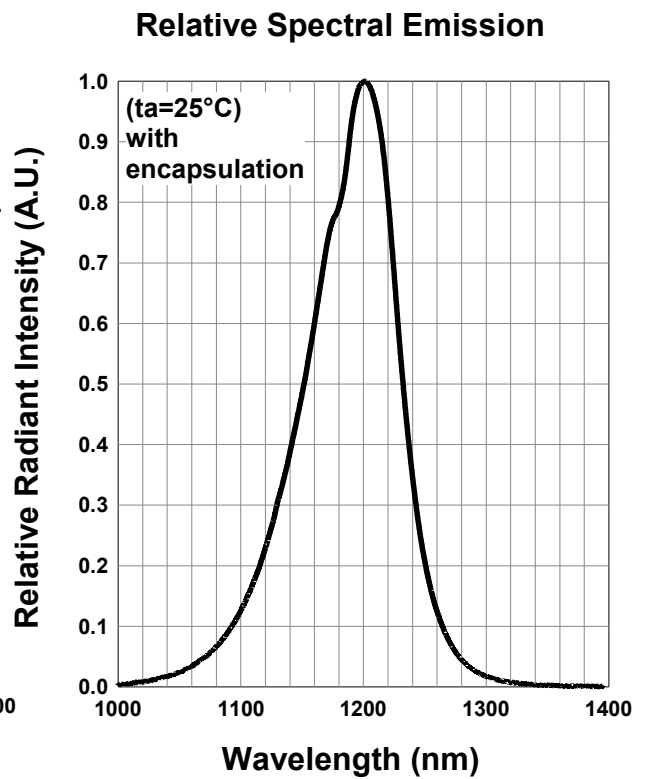
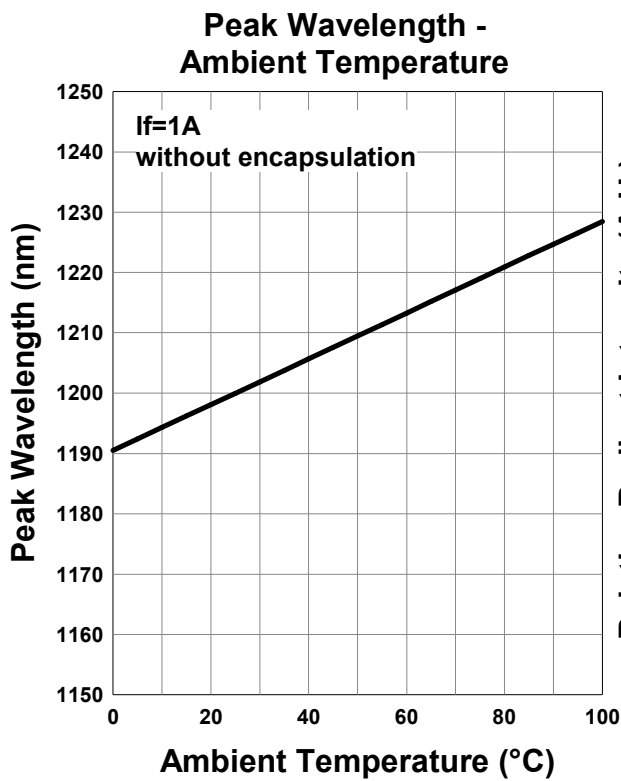
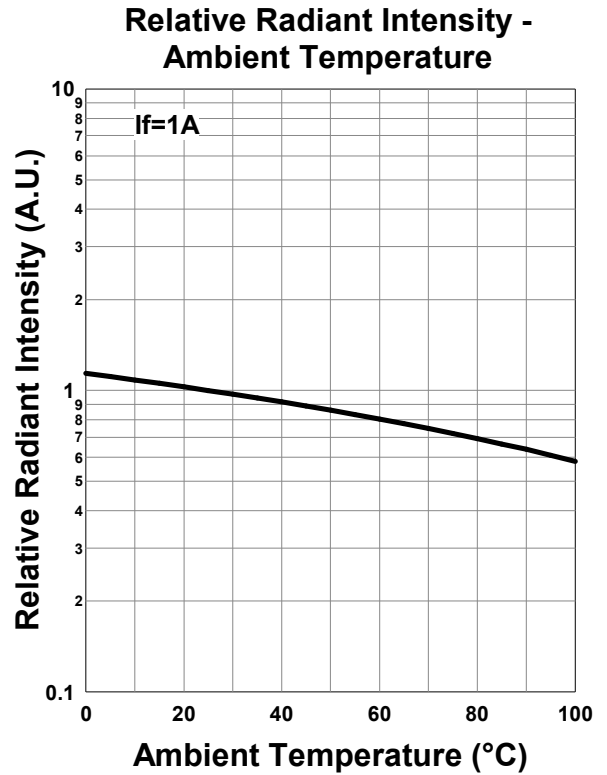
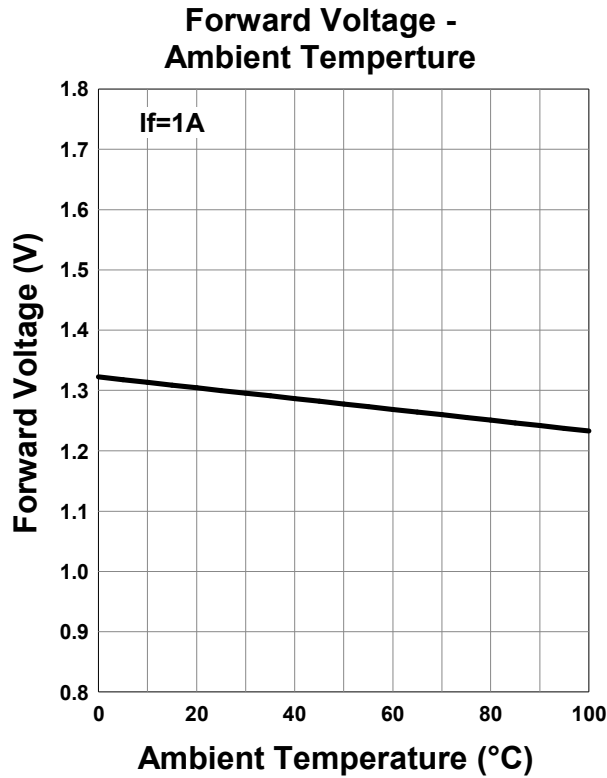
Radiation Characteristics



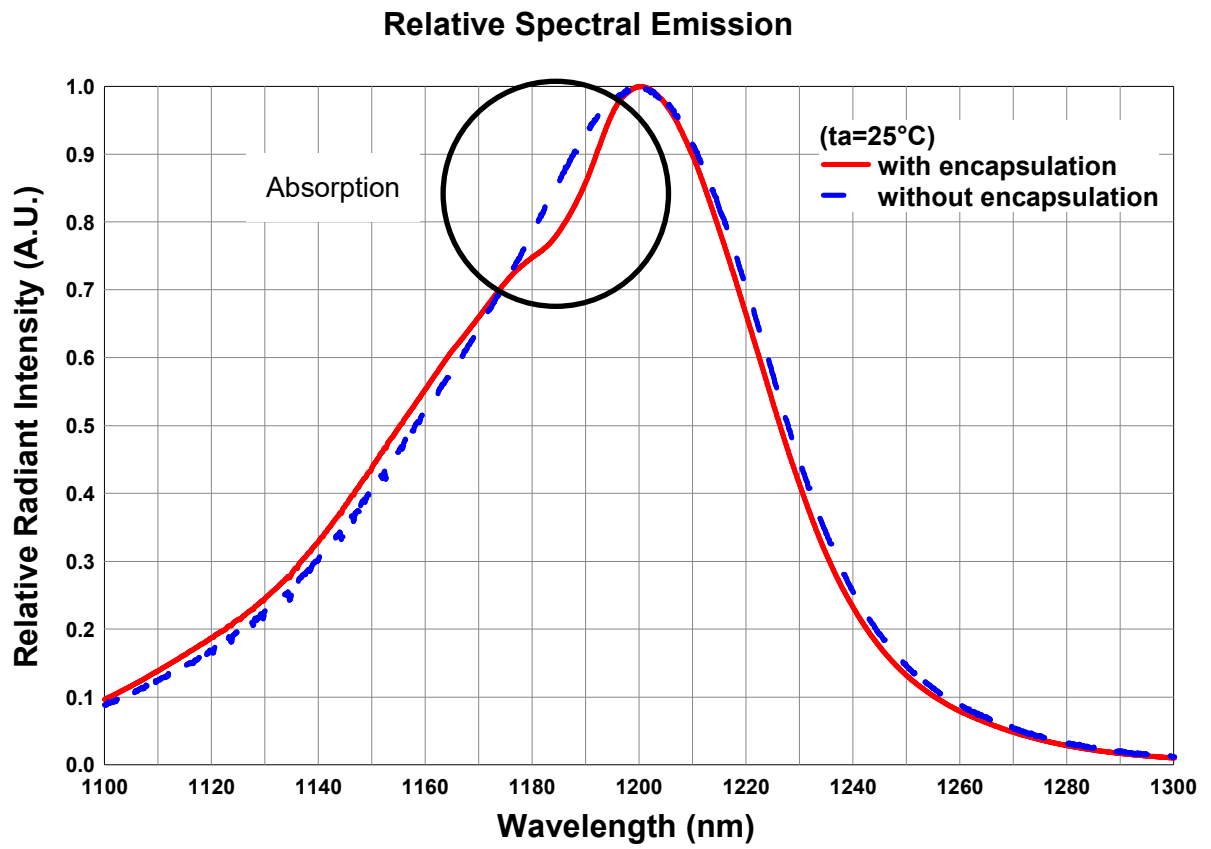
Radiation Characteristics



*The data below shows the characteristics of one representative COB chip.



*The absorption of lens resin changes spectral emission.



COB1 200D-1 61 00S-X

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.

Technical Support Information

<https://www.ushio.co.jp/en/led/technology/index.html>



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