Marubeni

Data Sheet

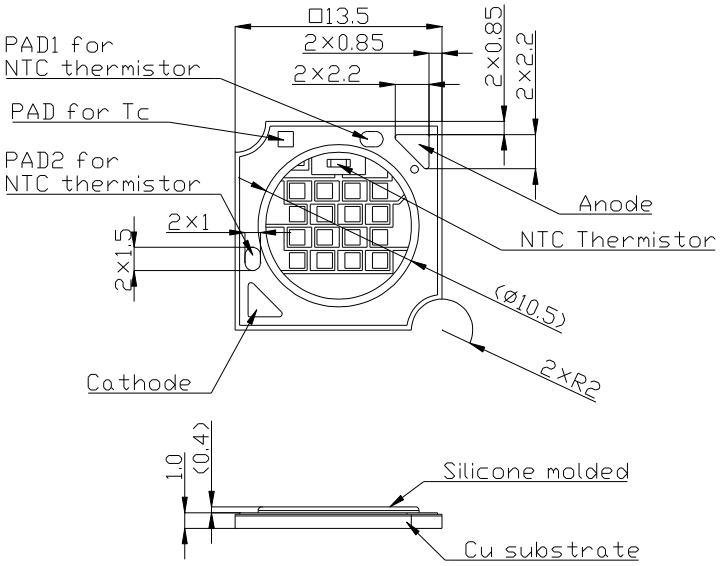
2024.11

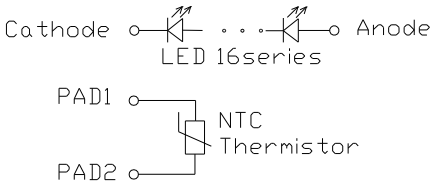
PRELIMINARY

COB850DS-16100S

COB type LED

Outline and Internal Circuit





(Unit : mm)

Features

· Chip Material : AlGaAs

· Chip Dimension : 1mm * 1mm

· Number of Chips : 16pcs

· Peak Wavelength : 850nm typ.

· Lead Frame Die : Aluminum

· Lens : Silicone resin

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	70	W
Forward Current	IF	1000	mA
Pulse Forward Current	IFP	5000	mA
Reverse Voltage	VR	80	V
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	TSOL	250	°C

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

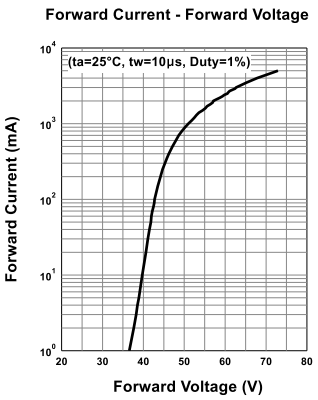
‡Soldering condition : Refer to technical support information on the website.

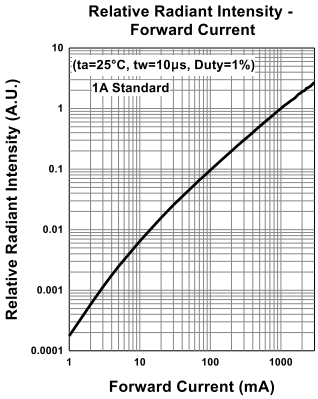
Optical and Electrical Characteristics (Tc=25°C)

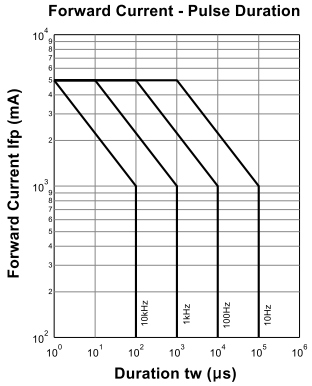
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		51	(70)	V	IF=1A t=20ms
Reverse Current	IR			10	uA	VR=80V
Total Radiated Power	PO		(14)		W	IF=1A t=20ms
Peak Wavelength	λp	840		865	nm	IF=1A t=20ms
Half Width	Δλ		33		nm	IF=1A t=20ms
Viewing Half Angle	θ1/2		±65		deg.	IF=100mA
Rise Time	tr		35		ns	IF=1A
Fall Time	tf		20		ns	IF=1A

‡ Radiated Power is measured by S3584-08.

Typical Characteristic Curves







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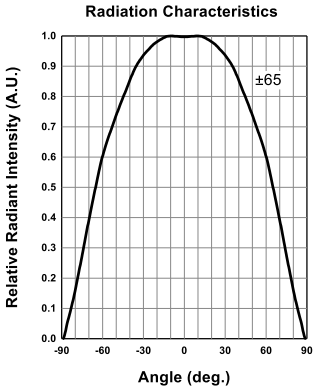

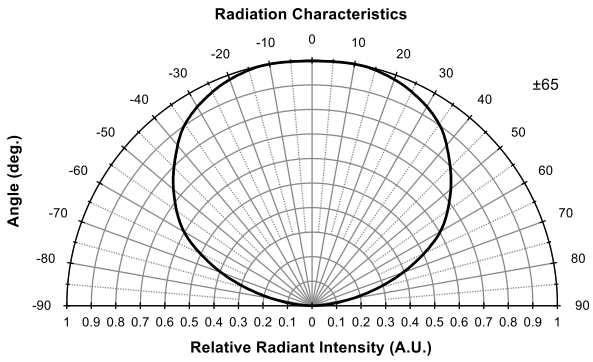

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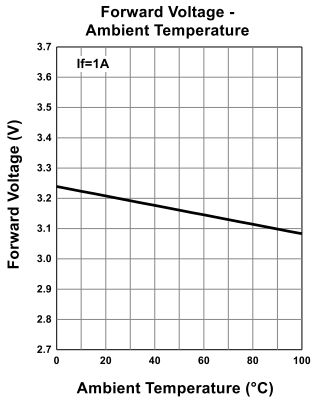
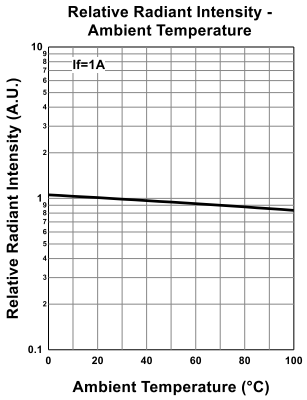
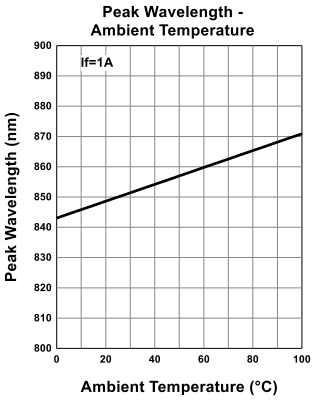
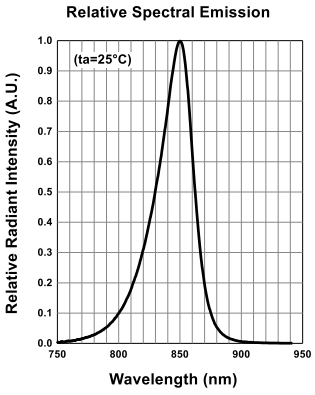
*The data below shows the characteristics of one representative COB chip.









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.

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.

The product is manufactured by USHIO Inc. and the spec information is also from USHIO Inc.

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