Marubeni

Data Sheet

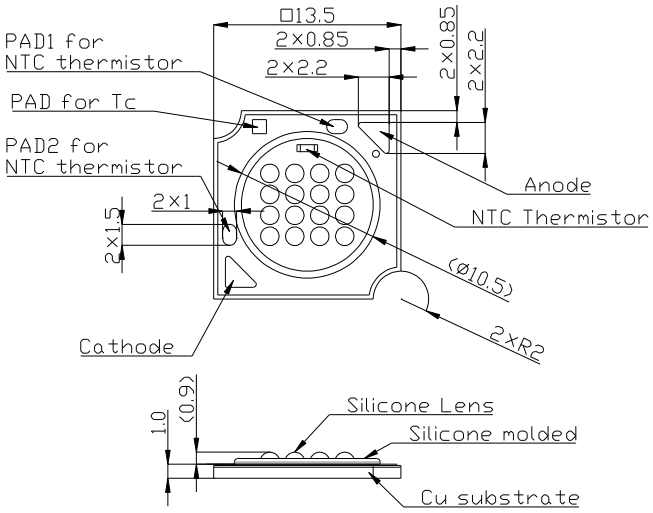
2024.11

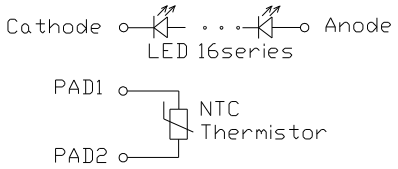
PRELIMINARY

COB850DS-16100S-WPL

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.

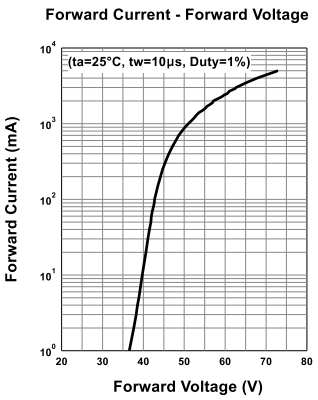
‡Soldering condition : Refer to technical support information on the website.

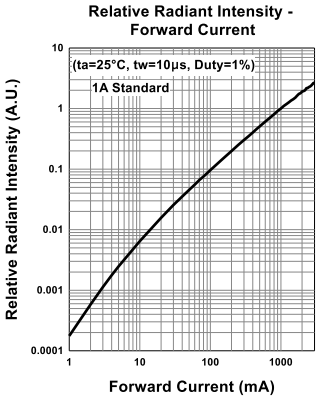
Optical and Electrical Characteristics (Tc=25°C)

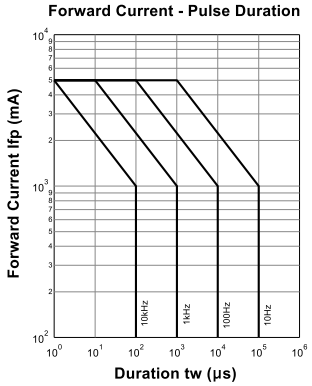
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		51	(70)	V	IF=1A t=20ms
Reverse Current	IR			10	uA	VR=80V
Total Radiated Power	PO		(16)		W	IF=1A t=20ms
Peak Wavelength	λp	840		865	nm	IF=1A t=20ms
Half Width	Δλ		33		nm	IF=1A t=20ms
Viewing Half Angle	θ1/2		±64		deg.	IF=100mA
Rise Time	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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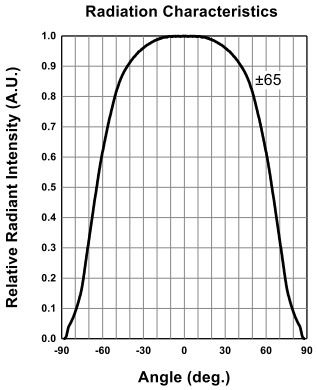

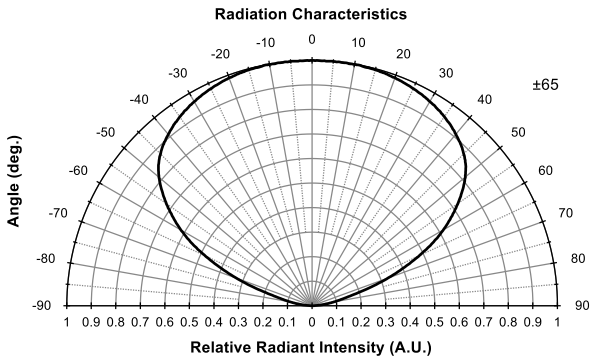

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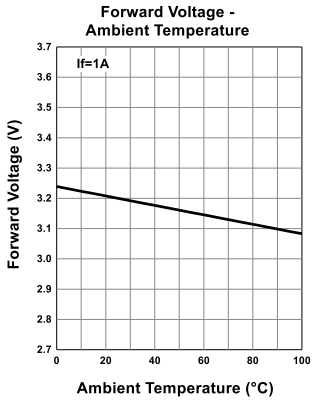
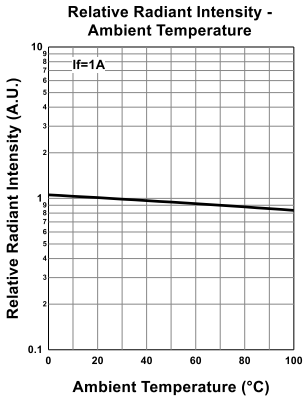
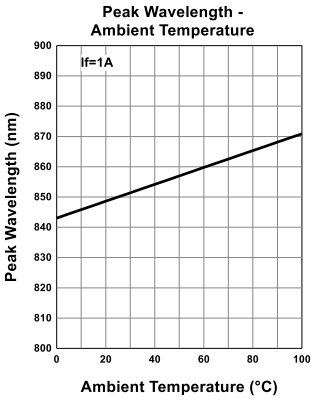
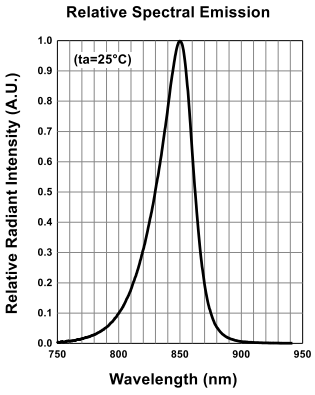
*The data below shows the characteristics of one representative COB chip.









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.

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