Data Sheet

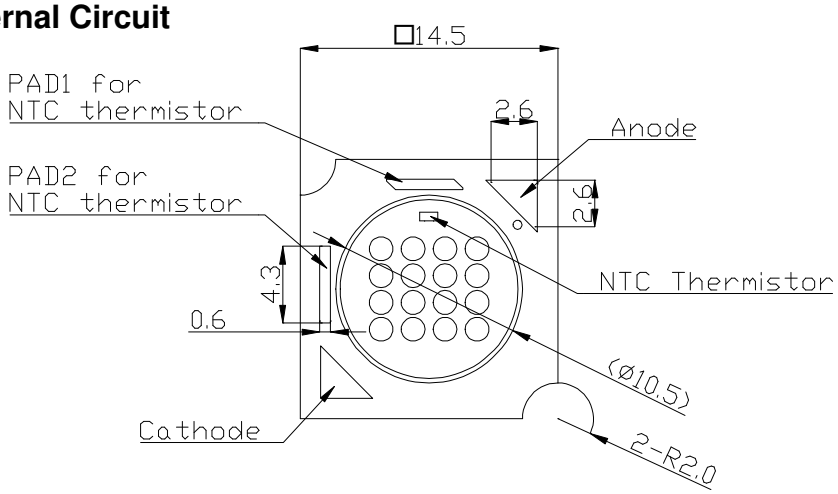
2022.05

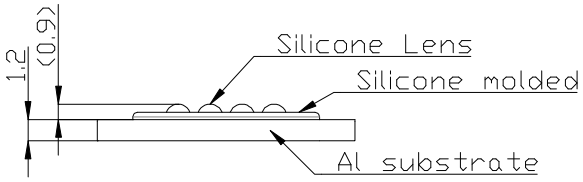
PRELIMINARY

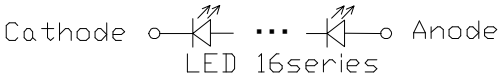
COB1300D-16100S-WPL

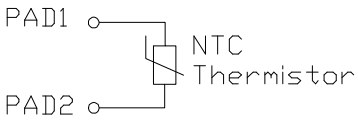
COB type LED

Outline and Internal Circuit









(Unit : mm)

Feature

- Chip Material : InGaAsP
- Chip Dimension : 1000um * 1000um
- Number of Chips : 16pcs
- Peak Wavelength : 1300nm typ.
- Lead Frame Die : Aluminum
- Lens : Silicone resin

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	28	W
Forward Current	IF	1000	mA
Pulse Forward Current	IFP	(2000)	mA
Reverse Voltage	VR	48	V
Thermal Resistance	Rthjs	5	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.

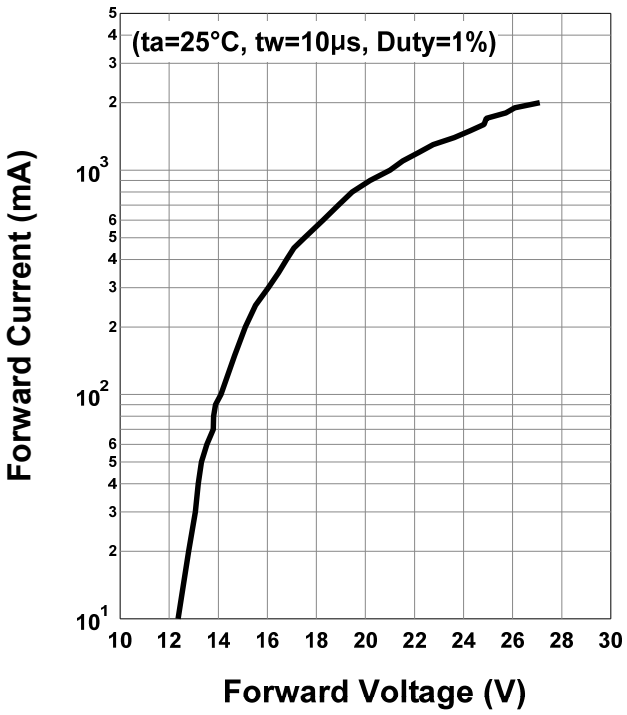
Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		21	(28)	V	IF=1A t=20ms
Reverse Current	IR			10	uA	VR=48V
Total Radiated Power	PO		2.4		W	IF=1A t=20ms
Peak Wavelength	λp	1250		1350	nm	IF=1A t=20ms
Half Width	Δλ		80		nm	IF=1A t=20ms
Viewing Half Angle	θ1/2		±65		deg.	IF=100mA
Rise Time	tr		90		ns	IF=1A
Fall Time	tf		30		ns	IF=1A

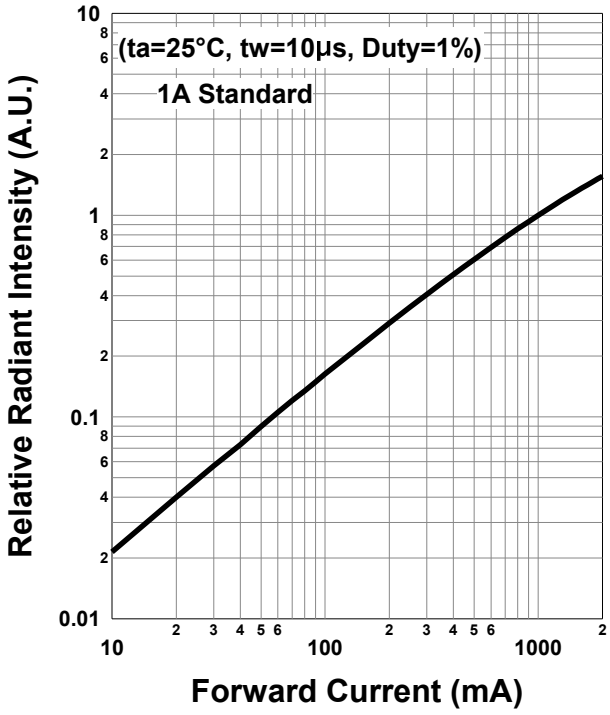
‡ Radiated Power is measured by G8370-85.

Typical Characteristic Curves

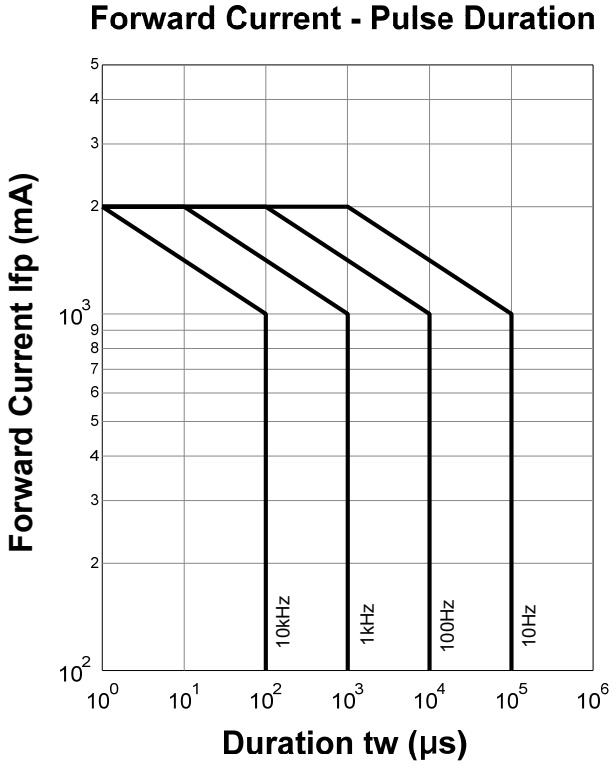
Forward Current - Forward Voltage

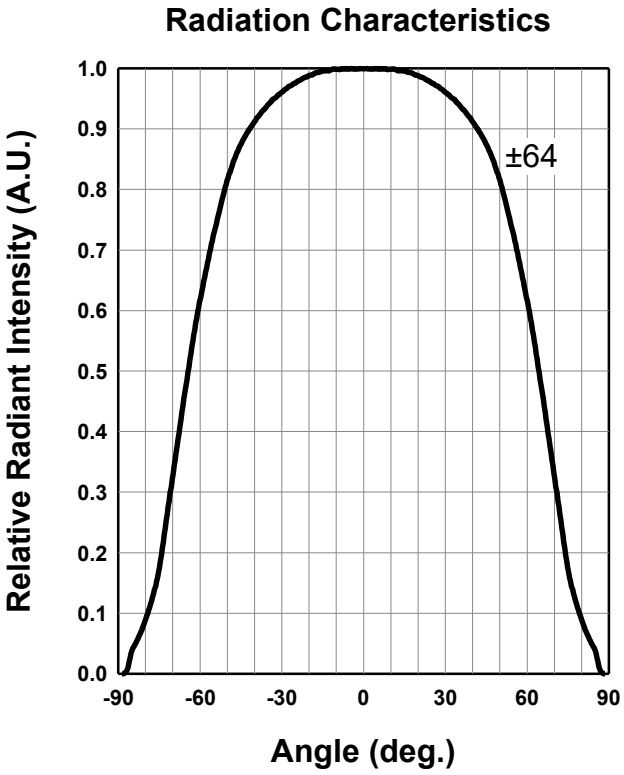


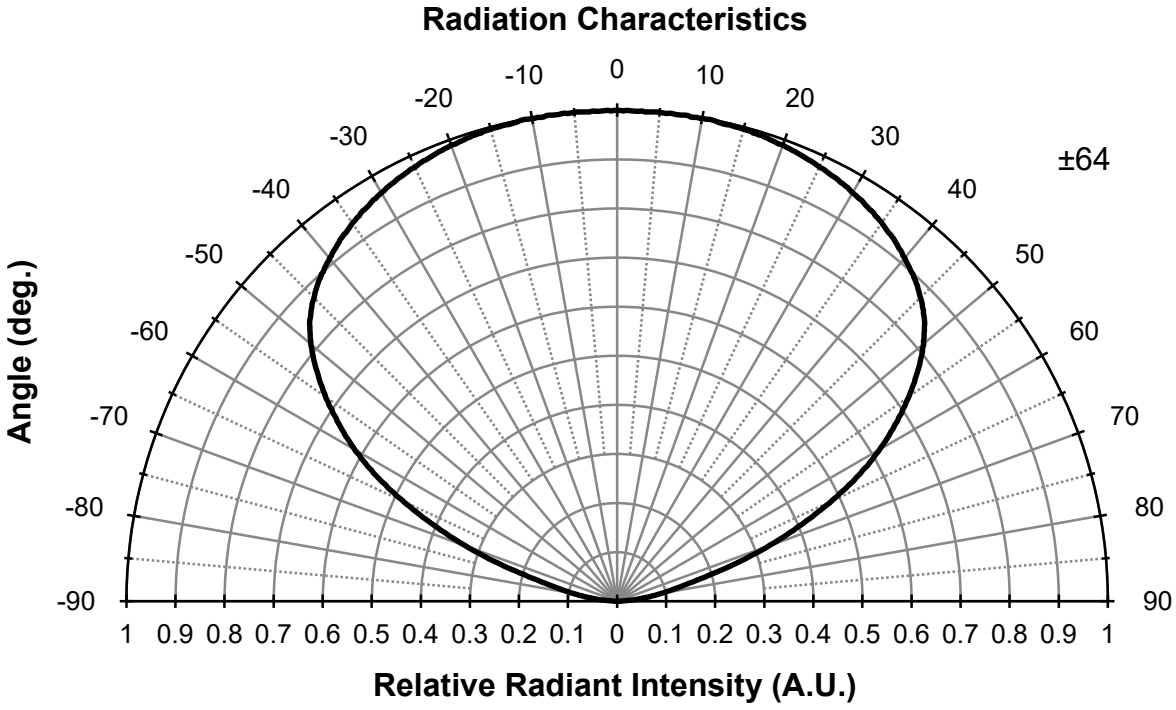
Relative Radiant Intensity - Forward Current



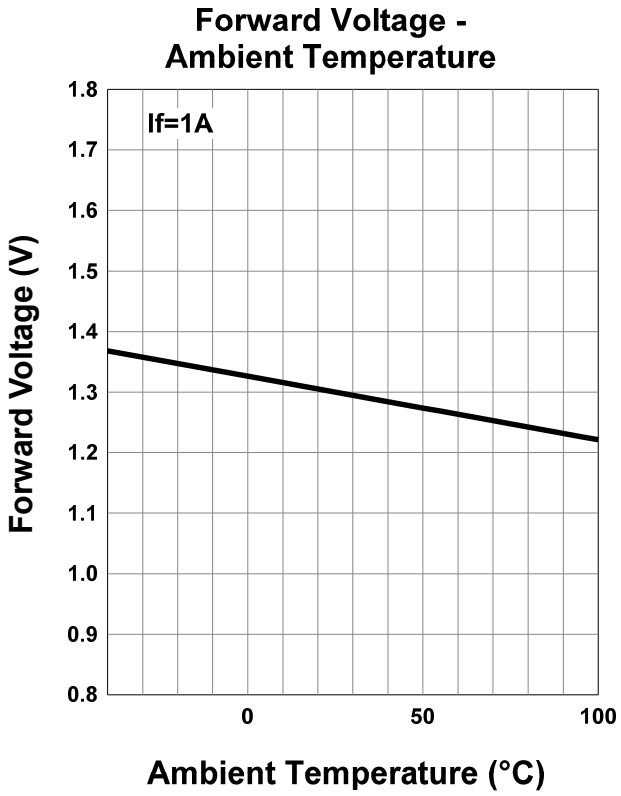
Forward Current - Pulse Duration

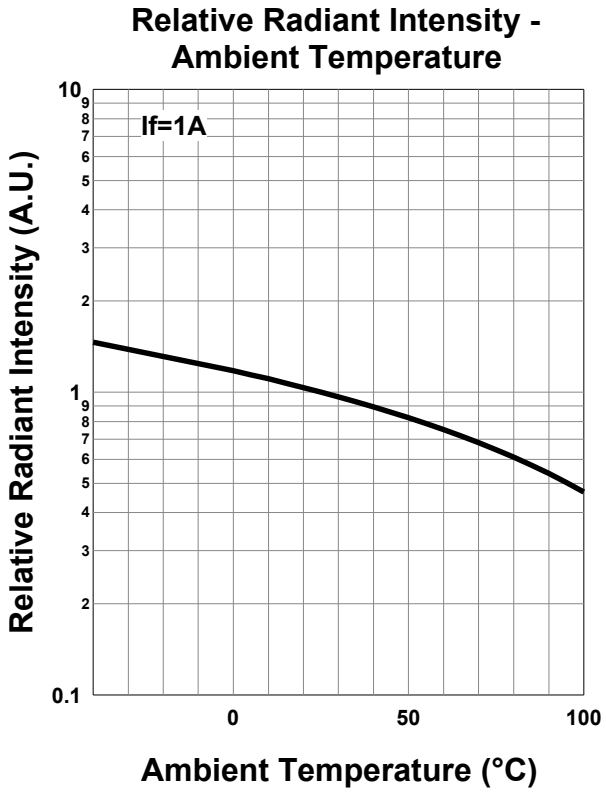


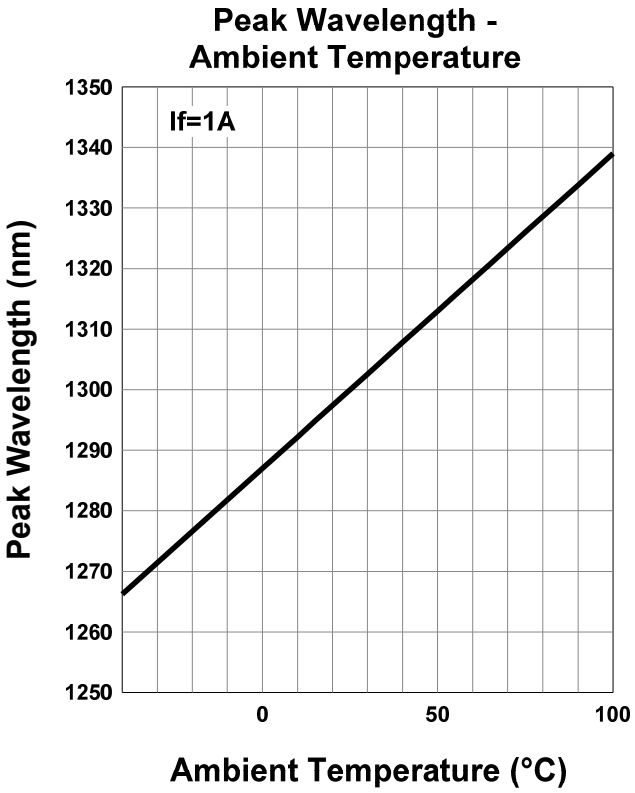

Radiation Characteristics
Relative Radiant Intensity (A.U.)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
±64
-90
-60
-30
0
30
60
90
Angle (deg.)

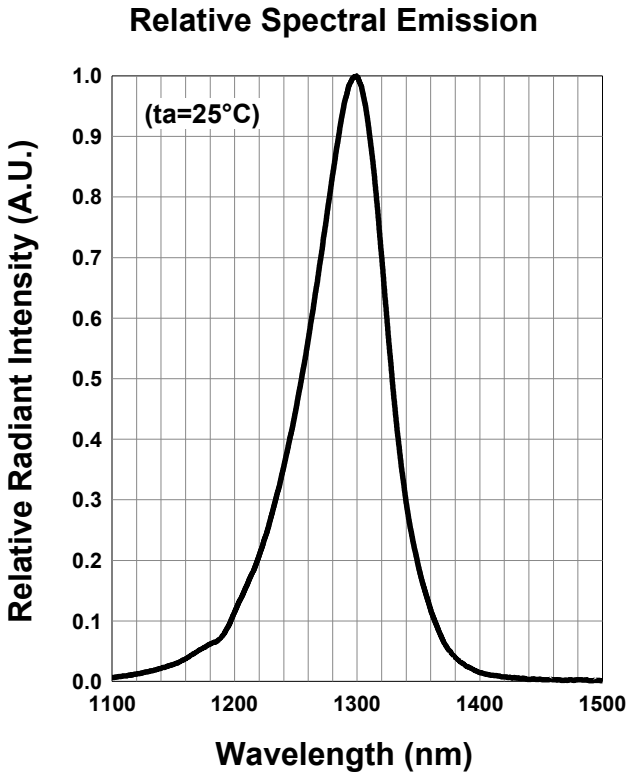

Radiation Characteristics
0
-10
10
-20
20
-30
30
-40
40
-50
50
-60
60
-70
70
-80
80
-90
90
±64
Angle (deg.)
1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Relative Radiant Intensity (A.U.)

Below is the sampling data of a single chip.









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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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