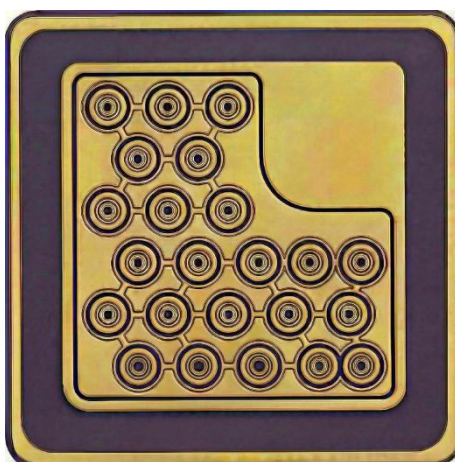


850nm 100mW VCSEL Laser Chip

Part No.: D-V0850M-0100-0010

Suitable for pulse power applications and the power is 100mW



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Features

- VCSEL (Vertical-Cavity Surface-Emitting Laser)
- High efficiency and reliability
- Stable central wavelength, narrow line width
- Doughnut shaped, symmetrical far field
- Surface mountable

Applications

- Sensor light source
- Consumer electronic products
- Machine vision
- Red lighting
- Industrial



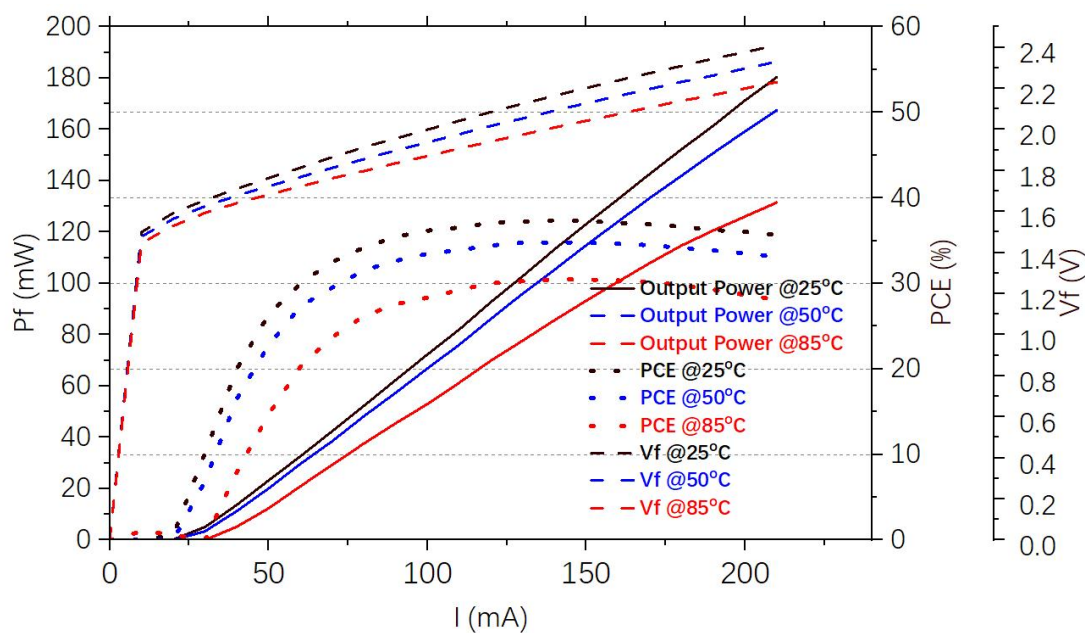
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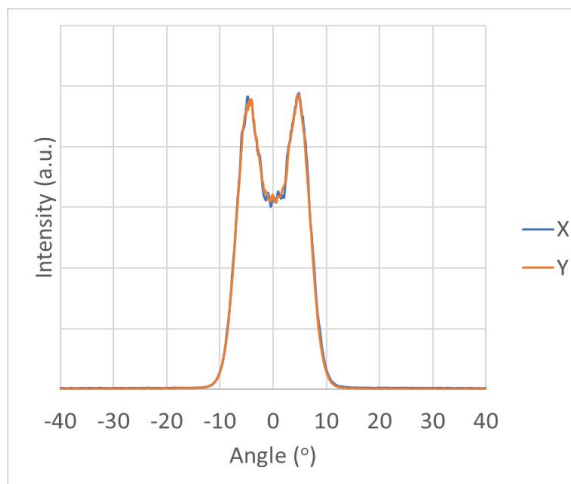
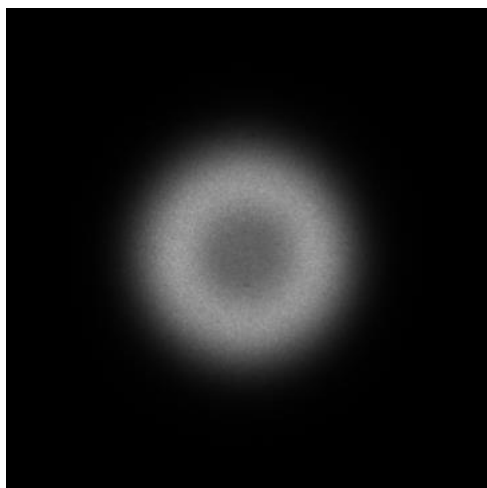
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L-I-V Curve



FFDA (Far-Field Divergence Angle)



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Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	--	26	35	
Forward Voltage	V _F	V	1.9	2.05	2.2	IF = 140mA
Differential Resistance	R _s	Ohm s	--	4	--	
Slop Efficiency	SE	W/A	0.9	1.0	--	
Output Power	Pop	mW	100	115	--	IF = 140mA
Power Conversion Efficiency	PCE	%	38	40	--	IF = 140mA
Wavelength	λ _{op}	nm	840	850	860	



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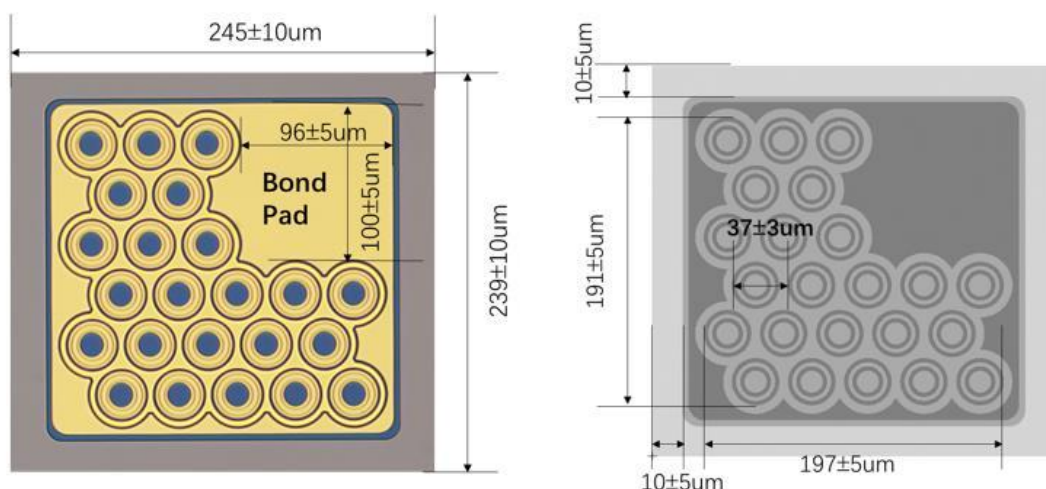
Divergence Angle(1/e2)		deg	18	20	23	IF = 140mA
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25°C, QCW Model (Pulse length 1ms, 10% Duty Cycle)



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Mechanical Specifications



Parameter	Specification
Die size	785245±10µm×239±10µm
Die Thickness	100±10µm
Number of Emitters	23
Emitting Aperture	10±1µm
Bond Pad Size(Anode Pad)	96±5µm×100±5µm
Bsck Electrode Size(Cathode Pad)	245±10µm×239±10µm



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