

940nm 5mW VCSEL Laser Chip

Part No.: D-V0940M-0005-0007

Suitable for pulse power applications and the power is 5mW



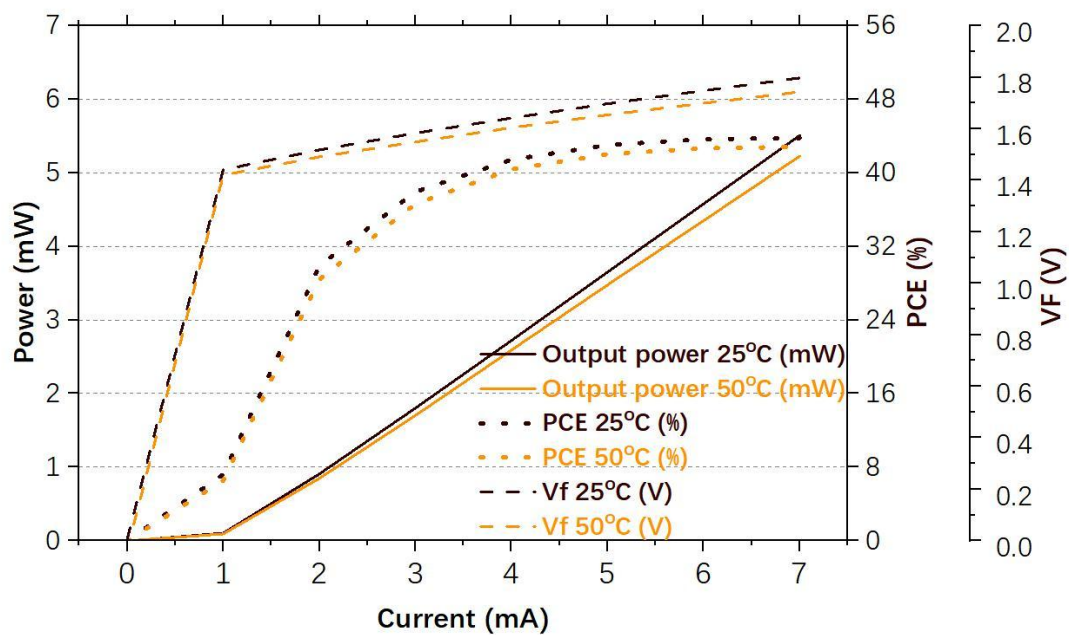
Features

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

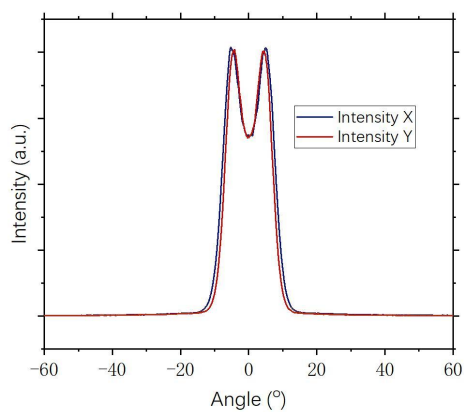
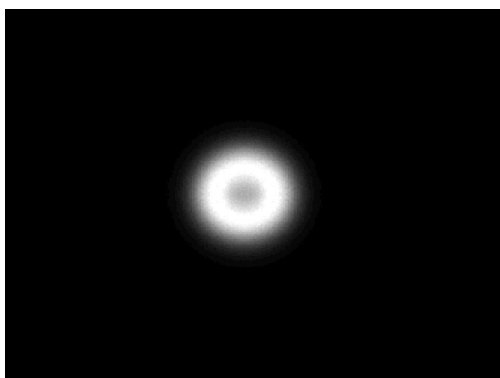
Applications

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

L-I-V Curve



FFDA (Far-Field Divergence Angle)



Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	--	0.9	1.2	
Forward Voltage	V _F	V	1.7	1.9	2.0	IF = 7mA
Differential Resistance	R _s	Ohms	--	60	--	
Slop Efficiency	SE	W/A	0.9	1.0	--	
Output Power	P _{op}	mW	5	6	--	IF = 7mA
Power Conversion Efficiency	PCE	%	40	42	--	IF = 7mA
Wavelength	λ _{op}	nm	930	940	950	
Divergence Angle(1/e ²)		deg	18	21	24	IF = 7mA

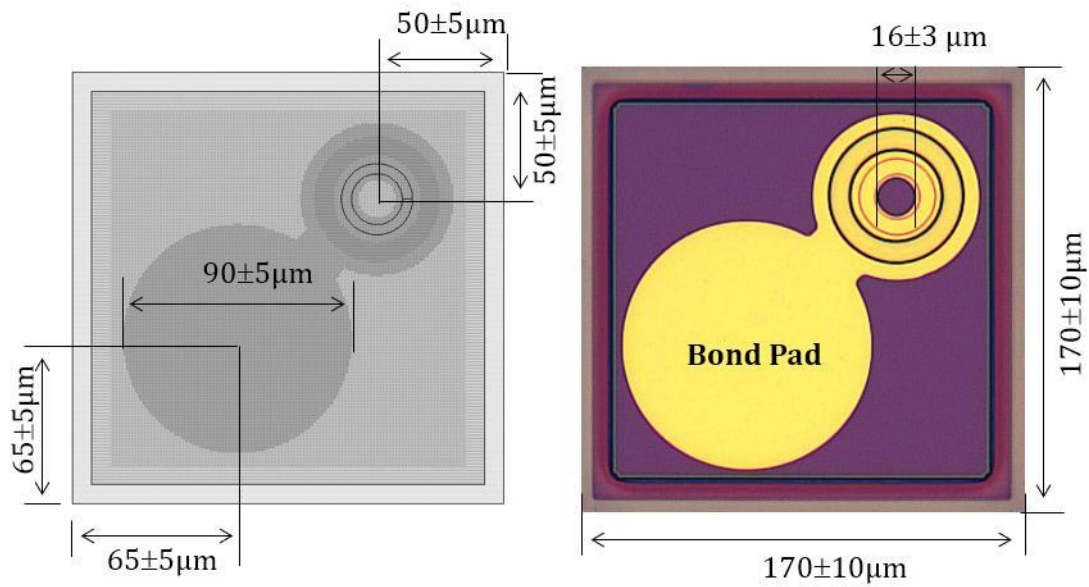
25°C, QCW Model (Pulse length 0.5ms, 1% Duty Cycle)

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The details in this document may subject to change without prior notice.

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Mechanical Specifications



参数 Parameter	规格 Specification
芯片尺寸 Die size	$170 \pm 10 \mu\text{m} \times 170 \pm 10 \mu\text{m}$
芯片厚度 Die Thickness	$130 \pm 10 \mu\text{m}$
光孔数目 Number of Emitters	1
焊盘尺寸 (正极) Bond Pad Size (Anode Pad)	$90 \pm 5 \mu\text{m}$
背面电极尺寸 (负极) Back Electrode Size (Cathode Pad)	$170 \pm 10 \mu\text{m} \times 170 \pm 10 \mu\text{m}$

