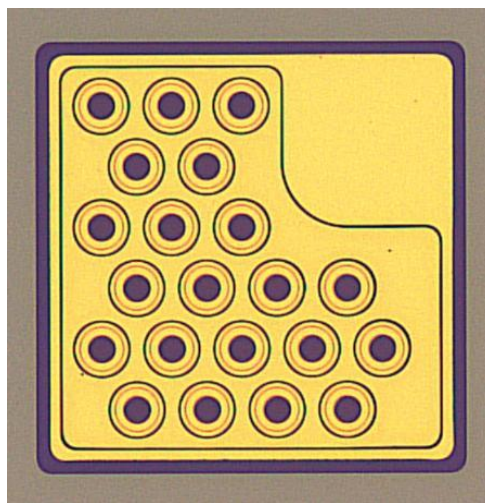


850nm 100mW VCSEL Laser Chip

Part No.: D-V0850M-0100-0013

Suitable for pulse power applications and the power is 100mW



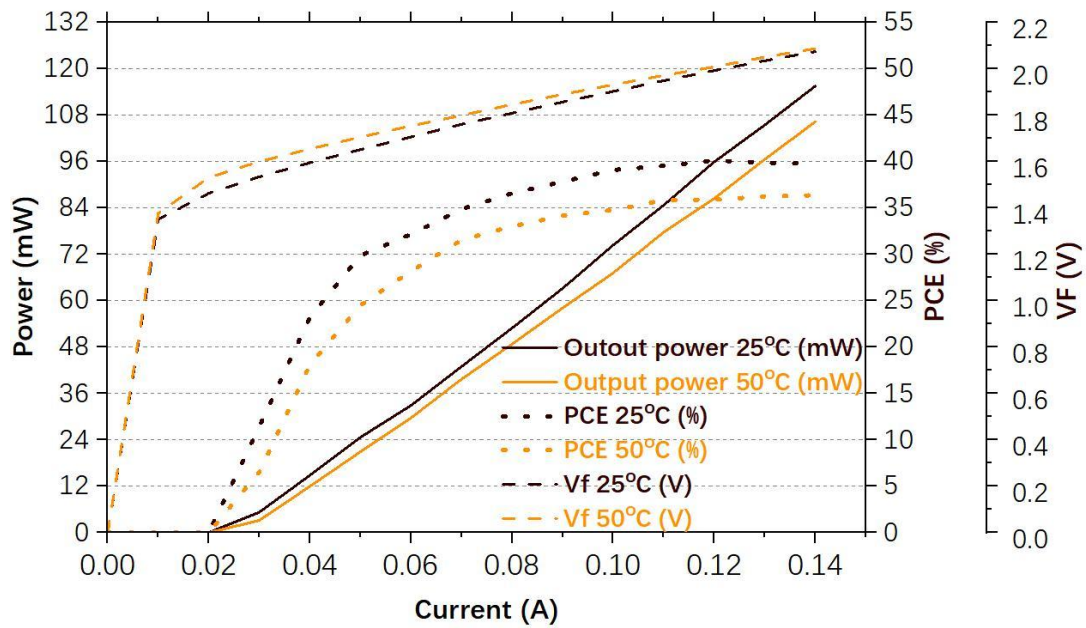
Features

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

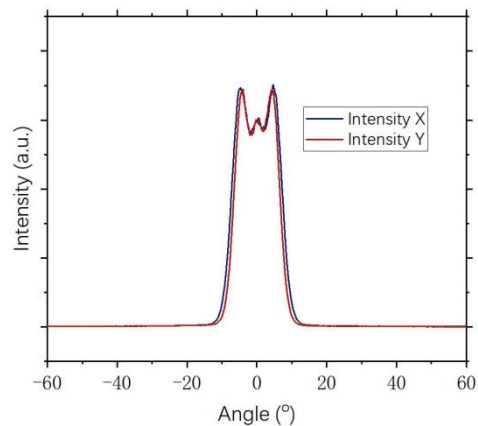
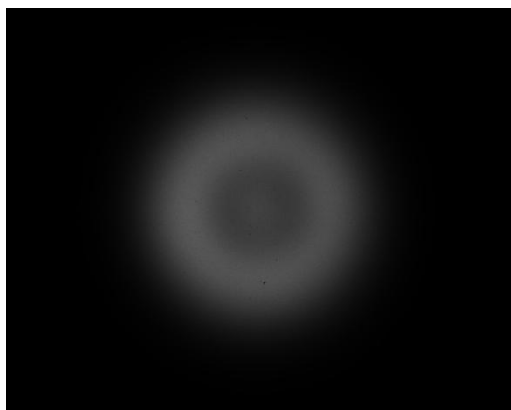
Applications

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

L-I-V Curve



FFDA (Far-Field Divergence Angle)

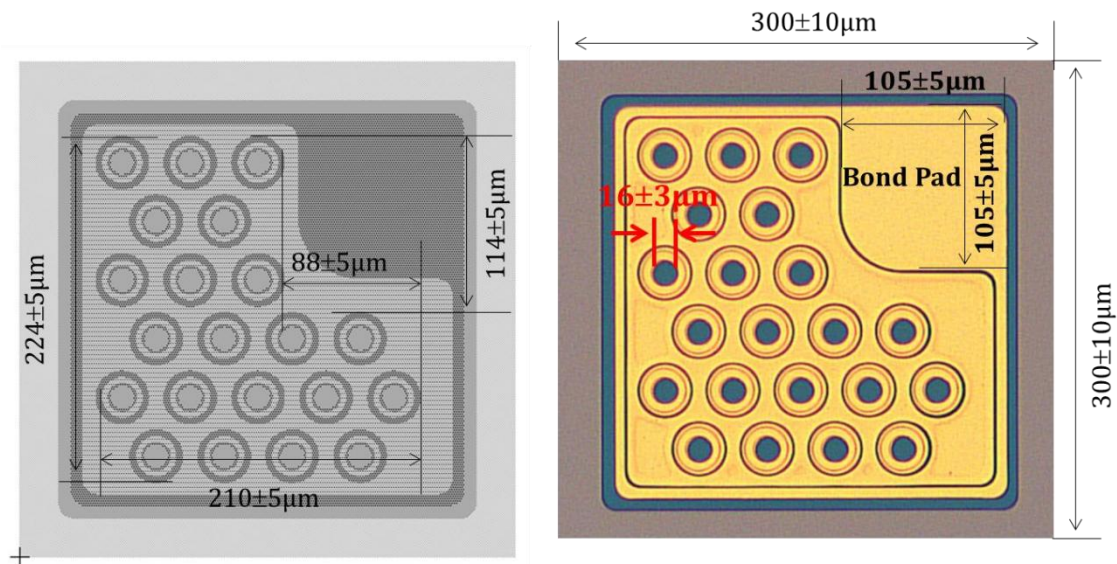


Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	--	25	35	
Forward Voltage	V _F	V	1.9	2.1	2.3	IF = 140mA
Differential Resistance	R _s	Ohms	--	5	--	
Slop Efficiency	SE	W/A	0.9	1.0	--	
Output Power	P _{op}	mW	100	120	--	IF = 140mA
Power Conversion Efficiency	PCE	%	38	40	--	IF = 140mA
Wavelength	λ _{op}	nm	840	850	860	
Divergence Angle(1/e ²)		deg	17	20	23	IF = 140mA

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

Mechanical Specifications



参数 Parameter	规格 Specification
芯片尺寸 Die size	300±10µm x 300±10µm
芯片厚度 Die Thickness	130±10µm
光孔数目 Number of Emitters	21
焊盘尺寸 (正极) Bond Pad Size (Anode Pad)	105±5µm
背面电极尺寸 (负极) Back Electrode Size (Cathode Pad)	300±10µm x 300±10µm

