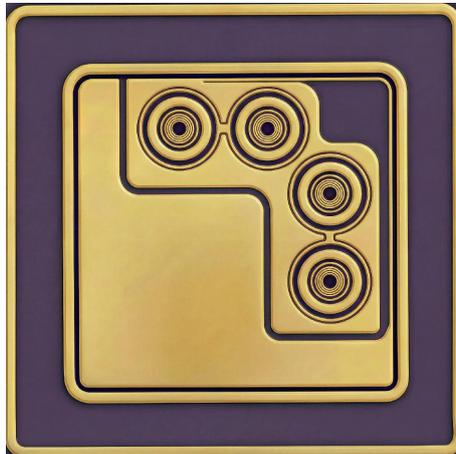


# 1064nm 20mW VCSEL Laser Chip

Part No.: D-V1064M-0020-0007

Suitable for pulse power applications and the power is 20mW



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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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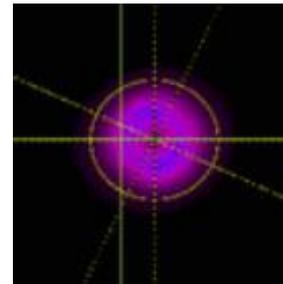
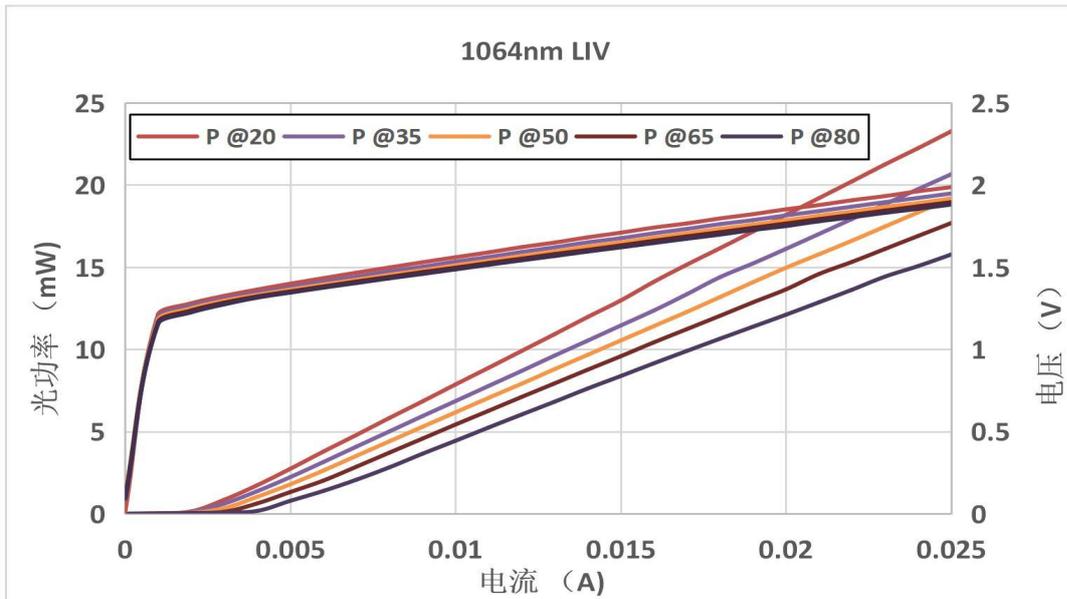
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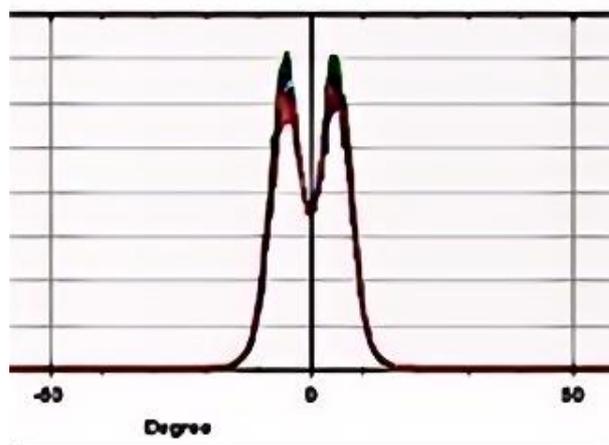
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### L-I-V Curve



### FFDA (Far-Field Divergence Angle)



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### Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I <sub>th</sub>	mA	--	3.0	--	
Forward Voltage	V <sub>F</sub>	V	--	2.0	--	IF = 25mA
Slop Efficiency	SE	W/A	0.8	0.9	--	
Output Power	Pop	mW	9	20	--	IF = 25mA
Power Conversion Efficiency	PCE	%	--	41	--	IF = 25mA
Wavelength	λ <sub>op</sub>	nm	1060	1064	--	
Divergence Angle(1/e <sup>2</sup> )		deg	--	21	--	IF = 25mA

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



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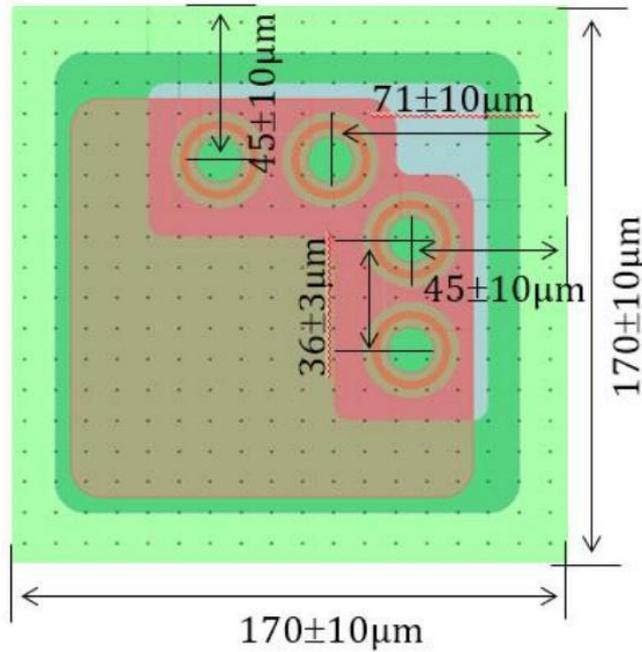
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### Mechanical Specifications



Parameter	Specification
Die size	$170 \pm 10 \mu\text{m} \times 170 \pm 10 \mu\text{m}$
Die Thickness	$130 \pm 10 \mu\text{m}$
Number of Emitters	4
Bond Pad Size(Anode Pad)	$87 \pm 3 \mu\text{m} \times 85 \pm 3 \mu\text{m}$
Bsck Electrode Size(Cathode Pad)	$170 \pm 10 \mu\text{m} \times 170 \pm 10 \mu\text{m}$



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