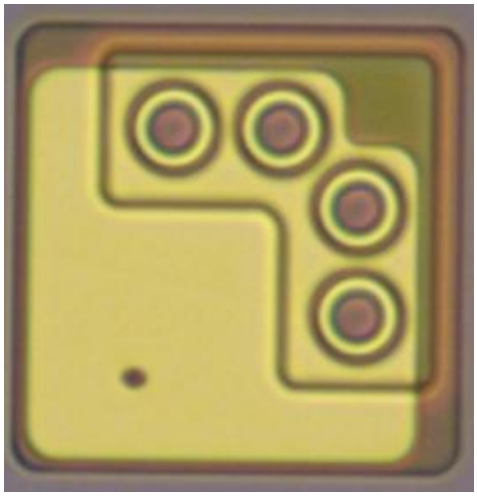
665nm 8mW VCSEL Laser Chip

Part No.： D-V0665M-0008-0007

Suitable for pulse power applications and the power is 8mW



August. 2024

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

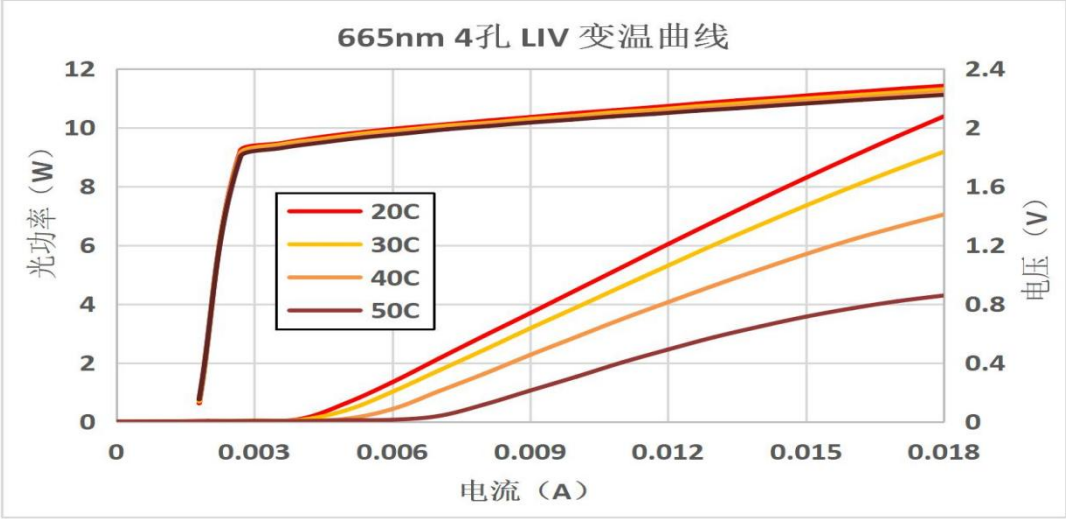
Features

- 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

L-I-V



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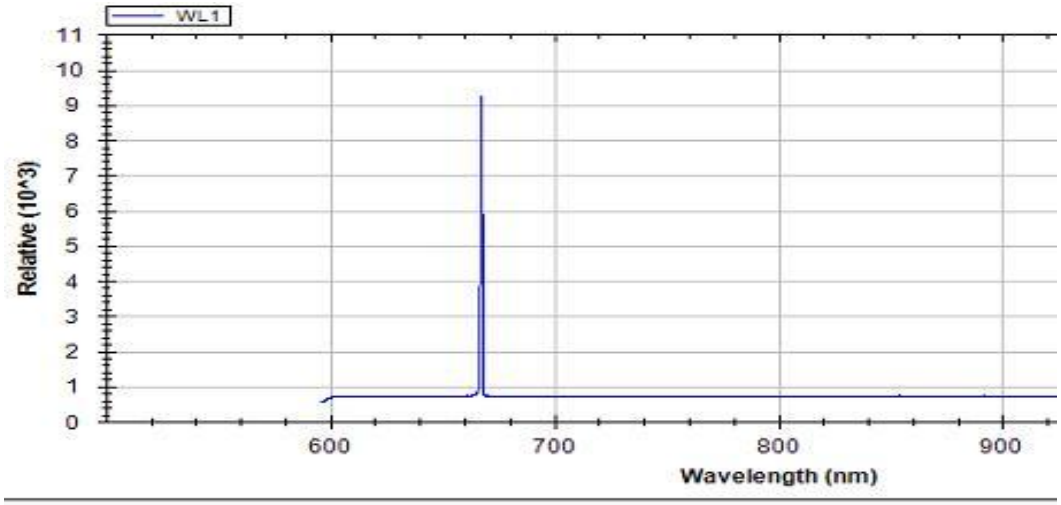
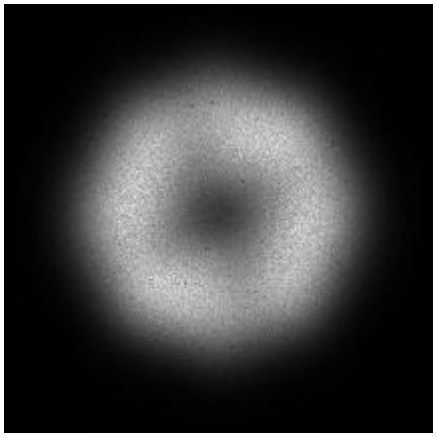
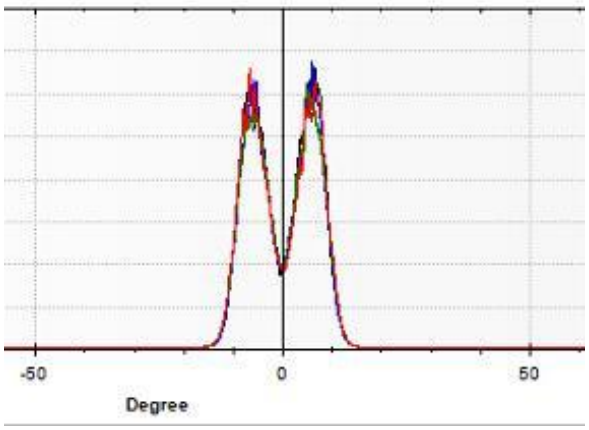
Spectroscopy



FFDA (Far-Field Divergence Angle) (~22° at 15 mA)





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Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	Ith	mA	3.5	4.5		
Forward Voltage	V_F	V	2.2	2.4		IF = 15mA
Output Power	Pop	mW	6.0	8.0		IF = 15mA
Slop Efficiency	SE	W/A	0.55	0.7		
Power Conversion Efficiency	PCE	%	17	22		IF = 15mA
Wavelength	λop	nm	660	665	670	
Divergence Angle(1/e2)		deg		22		IF = 15mA

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

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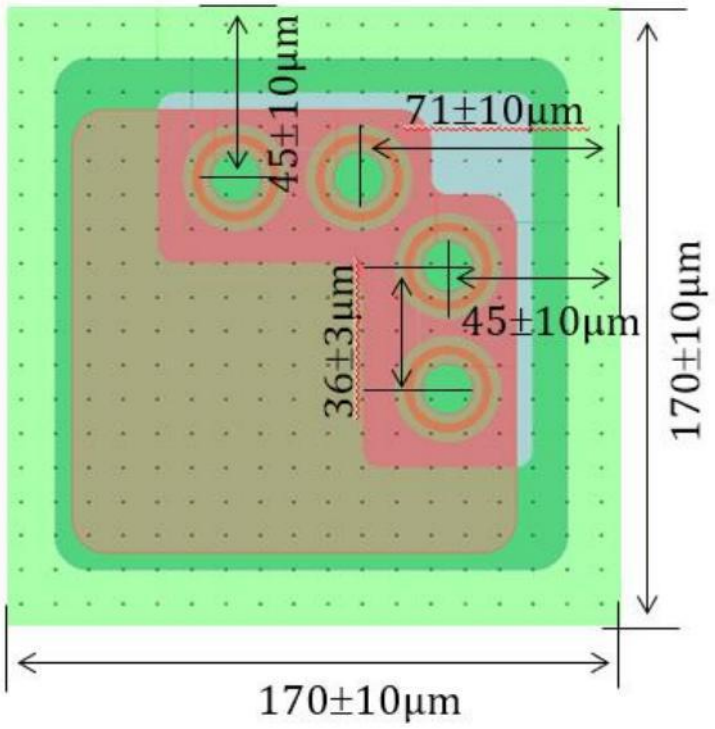
Mechanical Specifications



参数 Parameter	规格 Specification
芯片尺寸 Die size	170±10um x 170±10um
芯片厚度 Die Thickness	130±10μm
光孔数目 Number of Emitters	4
焊盘尺寸（正极） Bond Pad Size（Anode Pad)	87±3μm x 85±3μm
背面电极尺寸（负极） Back Electrode Size（Cathode Pad）	170±10um * 170±10um

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