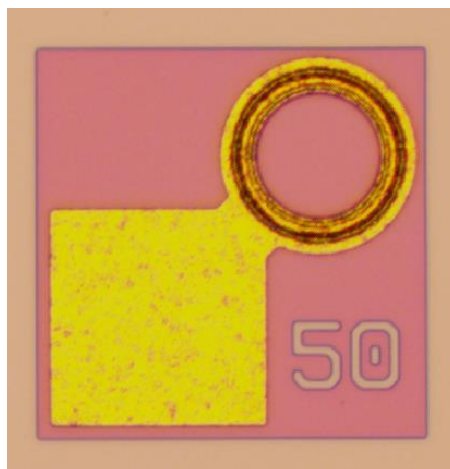


905nm 4W 7Mil Multi-Junction VCSEL Laser Chip

Part No.: D-V0905M-4000-0007-06

Suitable for pulse power applications and the power is 4W



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

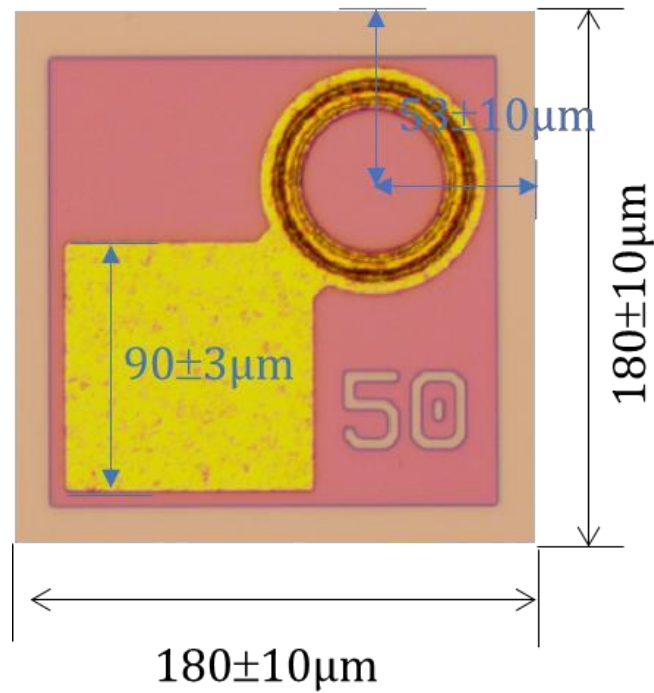
- Sensor light source
- Consumer electronic products
- Machine vision
- Red lighting
- Industrial

Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	--	20	40	
Forward Voltage	V _F	V	16	20	25	IF = 1A
Differential Resistance	R _s	Ohms	--	15	--	
Output Power	P _{op}	mW	4000	4500	--	IF = 1A
Power Conversion Efficiency	PCE	%	20	26	--	IF = 1A
Wavelength	λ _{op}	nm	895	905	915	
Divergence Angle(1/e ²)		deg	15	18	22	IF = 1A

25°C, Pulse Width 5ns, 0.1% Duty Cycle

Mechanical Specifications



参数 Parameter	规格 Specification
芯片尺寸 Die size	$180 \pm 10 \mu\text{m} \times 180 \pm 10 \mu\text{m}$
芯片厚度 Die Thickness	$150 \pm 10 \mu\text{m}$
光孔数目 Number of Emitters	1
发光点尺寸 Emitting Aperture	$50 \pm 1 \mu\text{m}$
焊盘尺寸 (正极) Bond Pad Size (Anode Pad)	$90 \pm 3 \mu\text{m} \times 90 \pm 3 \mu\text{m}$
背面电极尺寸 (负极) Back Electrode Size (Cathode Pad)	$180 \pm 10 \mu\text{m} \times 180 \pm 10 \mu\text{m}$

