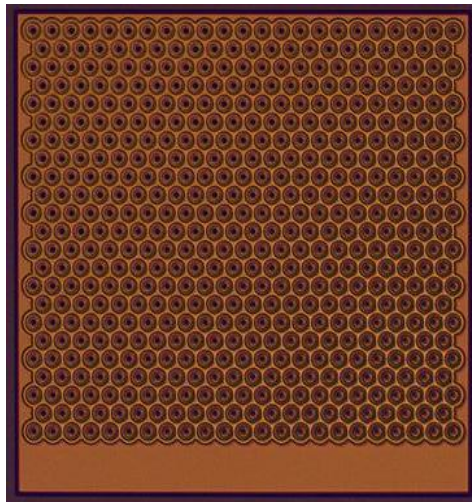


808nm 2W(CW) 42Mil VCSEL Laser Chip

Part No.: D-V0808M-2000-0042

Suitable for applications which require the CW operation with the power being around 2 W.



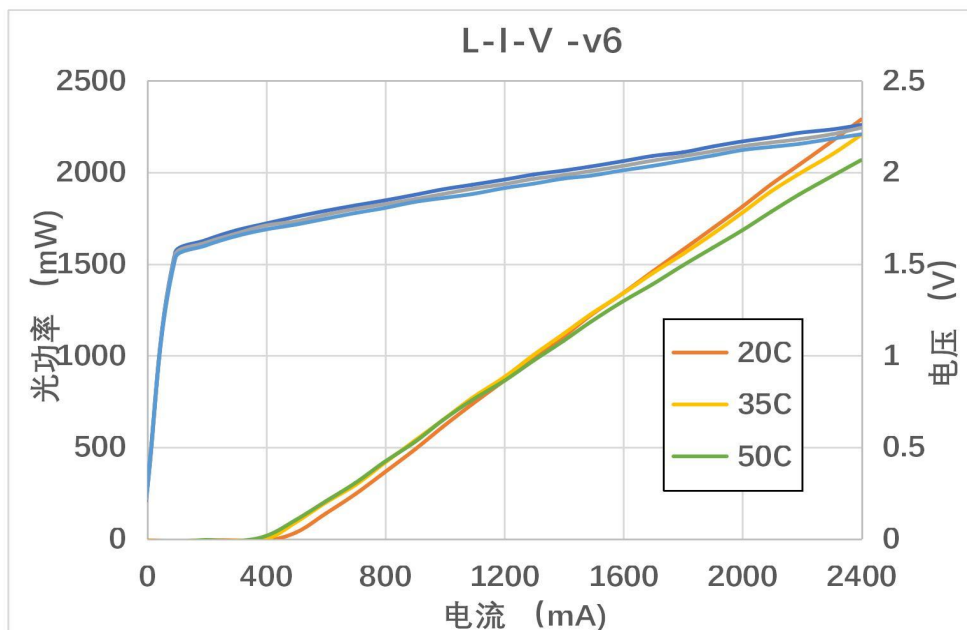
Features

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

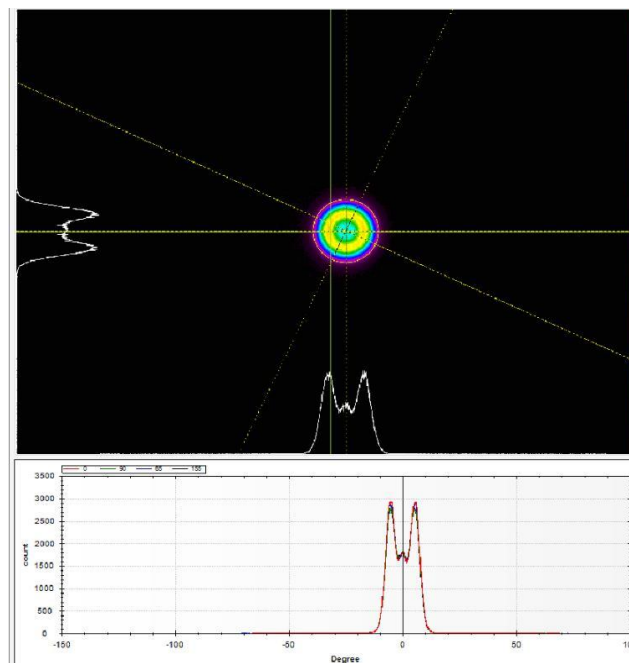
Applications

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

L-I-V Curve(tested under CW conditions)



Far Field profile



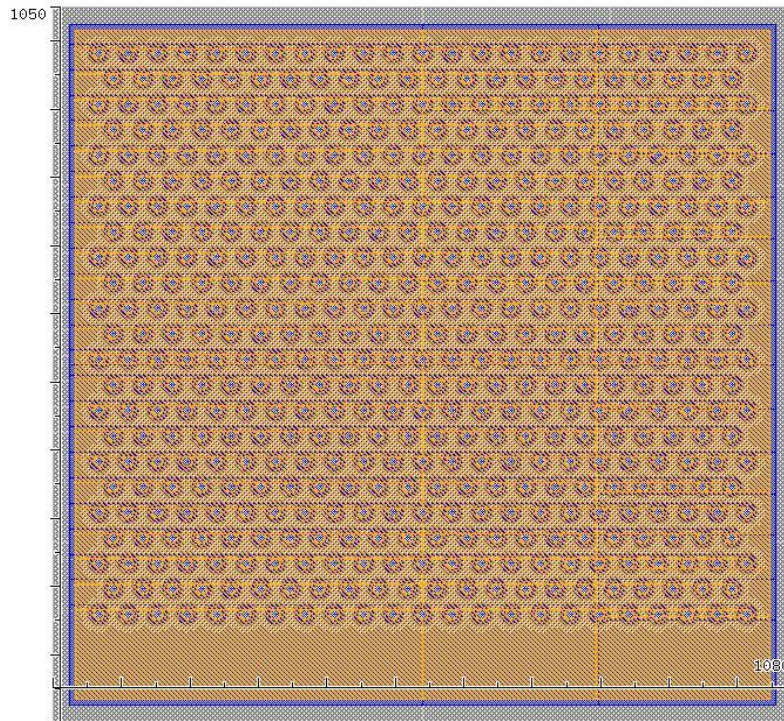
Dip39%

Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	--	400	550	
Forward Voltage	V _F	V	2.0	2.3	2.6	IF = 2.2A
Differential Resistance	R _s	Ohms	--	0.18	0.21	
Slop Efficiency	SE	W/A	1.05	1.15	--	@20 deg
Output Power	P _{op}	W	1.9	2.1	--	IF = 2.2A @20 deg
Power Conversion Efficiency	PCE	%	37	43		IF = 2.2A @20 deg
Wavelength	λ _{op}	nm	800	808	820	
Divergence Angle(1/e ²)		deg	17	22	24	IF = 2.2A @20 deg

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	--	400	550	
Forward Voltage	V _F	V	2.0	2.2	2.5	IF = 2.2A
Differential Resistance	R _s	Ohms	--	0.18	0.21	
Slop Efficiency	SE	W/A	1.0	1.1	--	@50 deg
Output Power	Pop	W	1.7	1.9	--	IF = 2.2A @50 deg
Power Conversion Efficiency	PCE	%	37	41		IF = 2.2A @50 deg
Wavelength	λ _{op}	nm	800	808	820	
Divergence Angle(1/e ²)		deg	17	22	24	IF = 2.2A @50 deg

Mechanical Specifications



参数 Parameter	规格 Specification
芯片尺寸 Die size	1080 ±10μm × 1050 ±10μm
芯片厚度 Die Thickness	100 ±10μm
焊盘尺寸 (正极) Bond Pad Size (Anode Pad)	1014 ±5μm × 98 ±5μm
背面电极尺寸 (负极) Back Electrode Size (Cathode Pad)	1080 ±10μm × 1050 ±10μm

