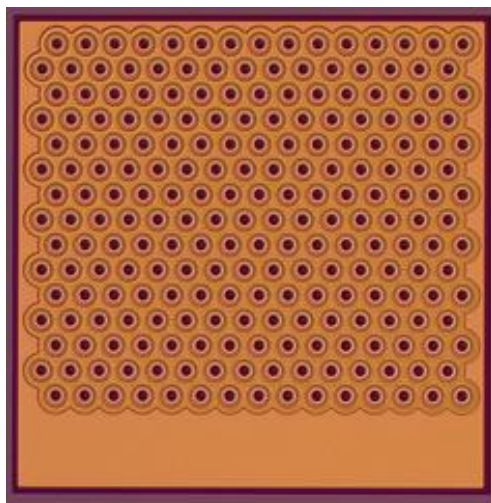


850nm 100mW VCSEL Laser Chip

Part No.: D-V0850M-0100-0013

Suitable for CW power applications and the power is 100mW



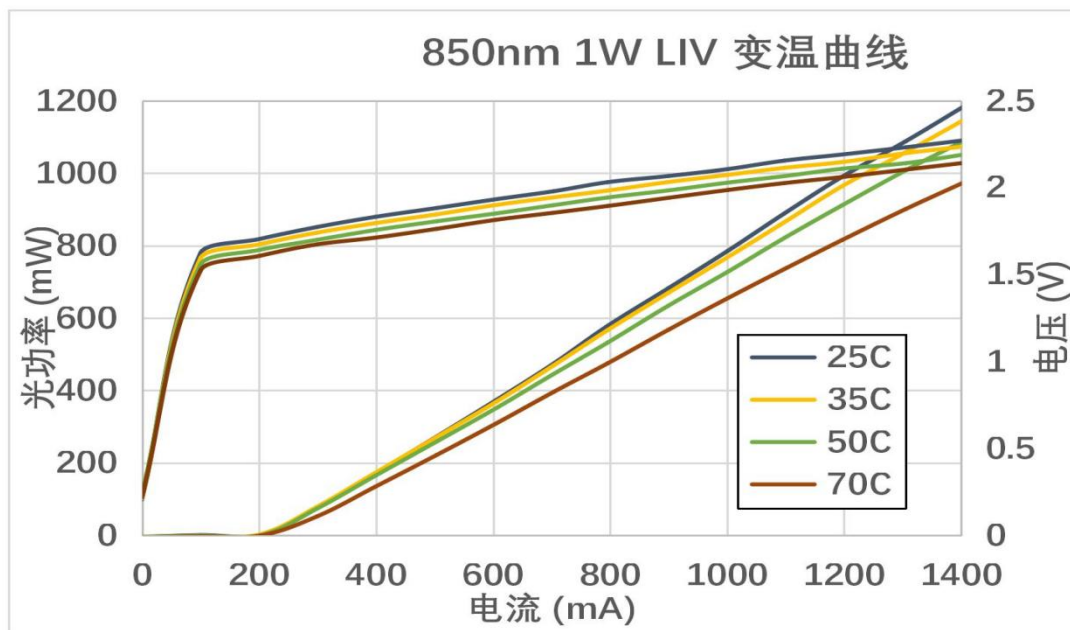
Features

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

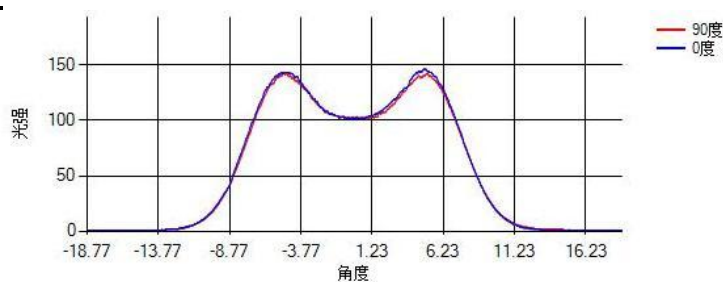
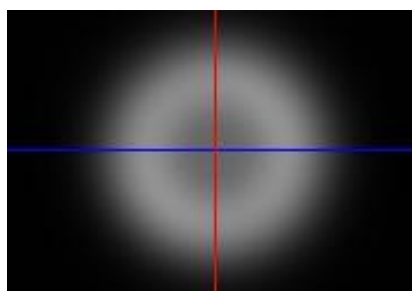
Applications

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

L-I-V Curve



FFDA (Far-Field Divergence Angle)(20 deg @ 1.4A)



Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	200	220	250	
Forward Voltage	V _F	V	2.0	2.3	2.5	IF = 1.4A
Differential Resistance	R _s	Ohms	--	0.5	--	
Slop Efficiency	SE	W/A	0.9	1.0	--	
Output Power	P _{op}	mW	1000	1200	--	IF = 1.4A
Power Conversion Efficiency	PCE	%	39	42	--	IF = 1.4A
Wavelength	λ _{op}	nm	840	850	860	
Divergence Angle(1/e ²)		deg	18	20	22	IF = 1.4A

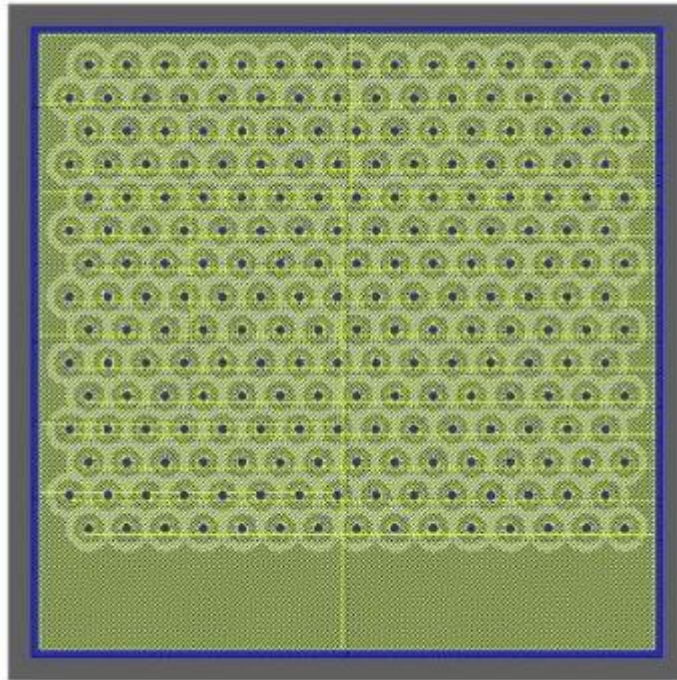
25°C, CW Model

June 2024

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

Email: info@deraysemi.com
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Mechanical Specifications



参数 Parameter	规格 Specification
芯片尺寸 Die size	725±10μm X 725±10μm
芯片厚度 Die Thickness	125±10μm
光孔数目 Number of Emitters	225
焊盘尺寸 (正极) Bond Pad Size (Anode Pad)	650±5μm X 105±5μm
背面电极尺寸 (负极) Back Electrode Size (Cathode Pad)	725±10μm X 725±10μm

