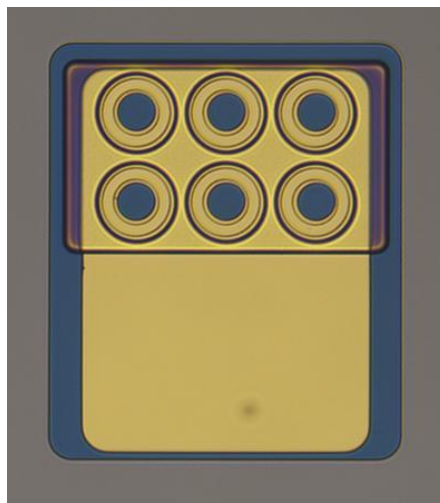


850nm 30mW VCSEL Laser Chip

Part No.: D-V0850M-0030-0007

Suitable for pulse power applications and the power is 30mW



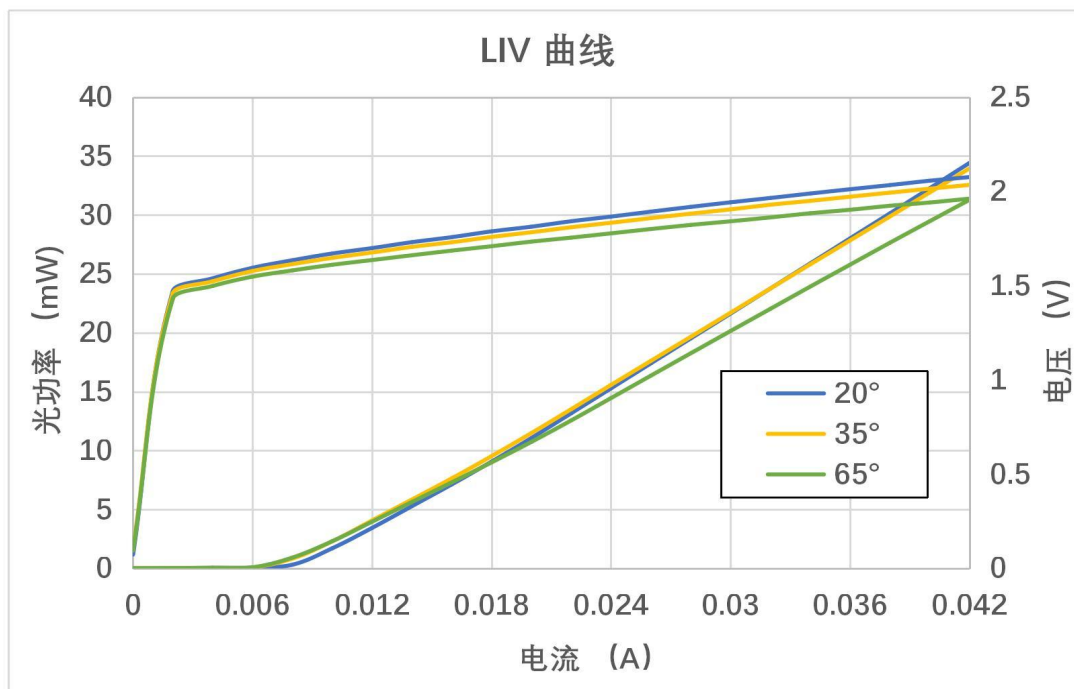
Features

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

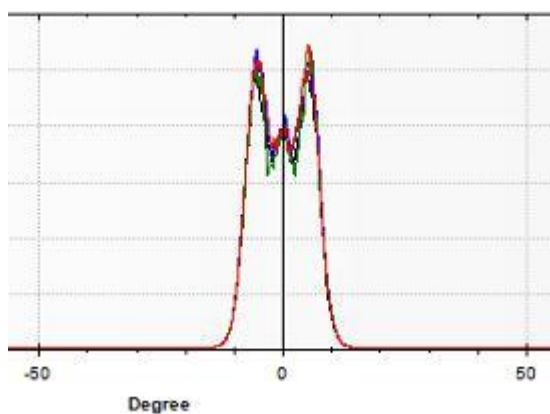
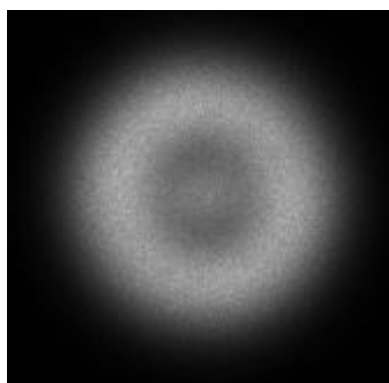
Applications

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

L-I-V Curve



FFDA (Far-Field Divergence Angle)



Electrical Optical Characteristics

Parameter	Symbol	Unit	Min.	Typ.	Max	Note
Threshold Current	I _{th}	mA	6.0	8.0	--	
Forward Voltage	V _F	V	1.95	2.05	2.2	IF = 42mA
Differential Resistance	R _s	Ohms	--	10	--	
Slop Efficiency	SE	W/A	0.95	1.05	--	
Output Power	P _{op}	mW	30	34	--	IF = 42mA
Power Conversion Efficiency	PCE	%	38	41	--	IF = 42mA
Wavelength	λ _{op}	nm	840	850	860	
Divergence Angle(1/e ²)		deg	18	20	23	IF = 42mA

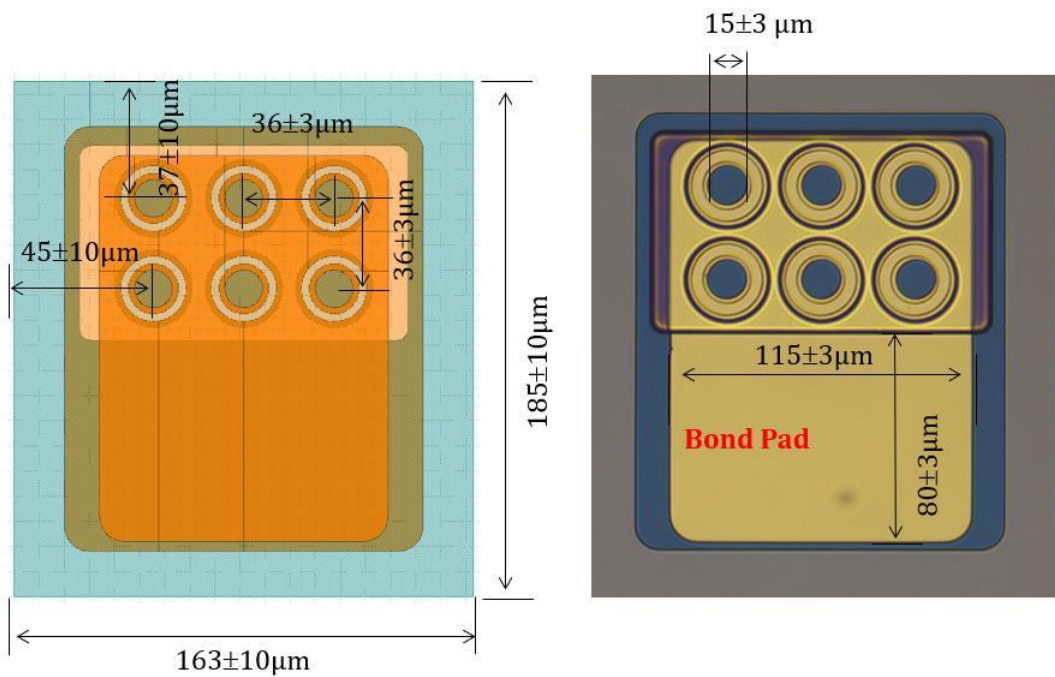
25°C, QCW Model (Pulse length 1ms, 10% Duty Cycle)

February 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	163±10um x 185±10um
芯片厚度 Die Thickness	130±10µm
光孔数目 Number of Emitters	6
焊盘尺寸（正极） Bond Pad Size（Anode Pad）	115±3µm x 80±3µm
背面电极尺寸（负极） Back Electrode Size（Cathode Pad）	163±10um x 185±10um

