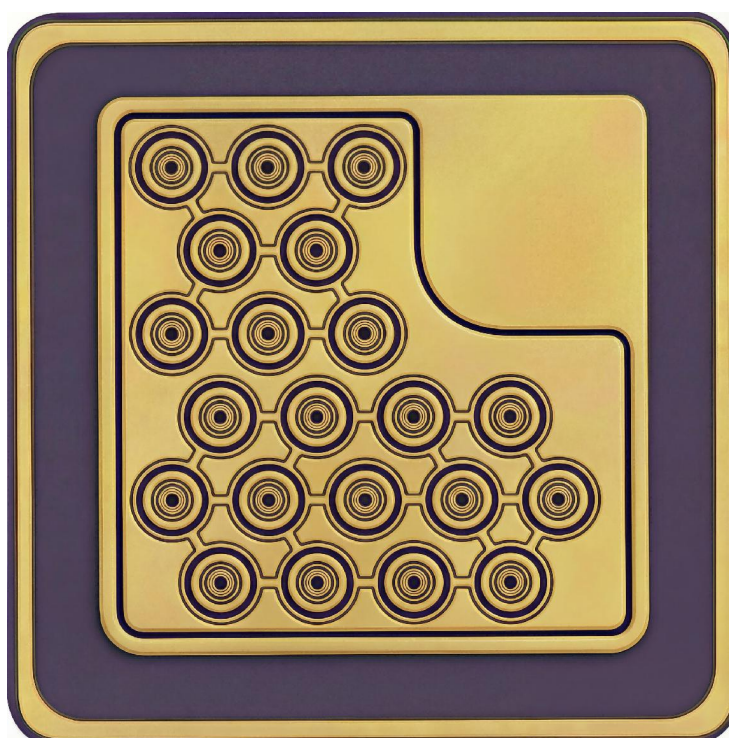


850nm 150mW VCSEL Laser Chip

Part No.: YZG-D850-150mW

Suitable for QCW power applications and the power is 150mW



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Features

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

Applications

- Sensor light source
- Consumer electronic products
- Machine vision



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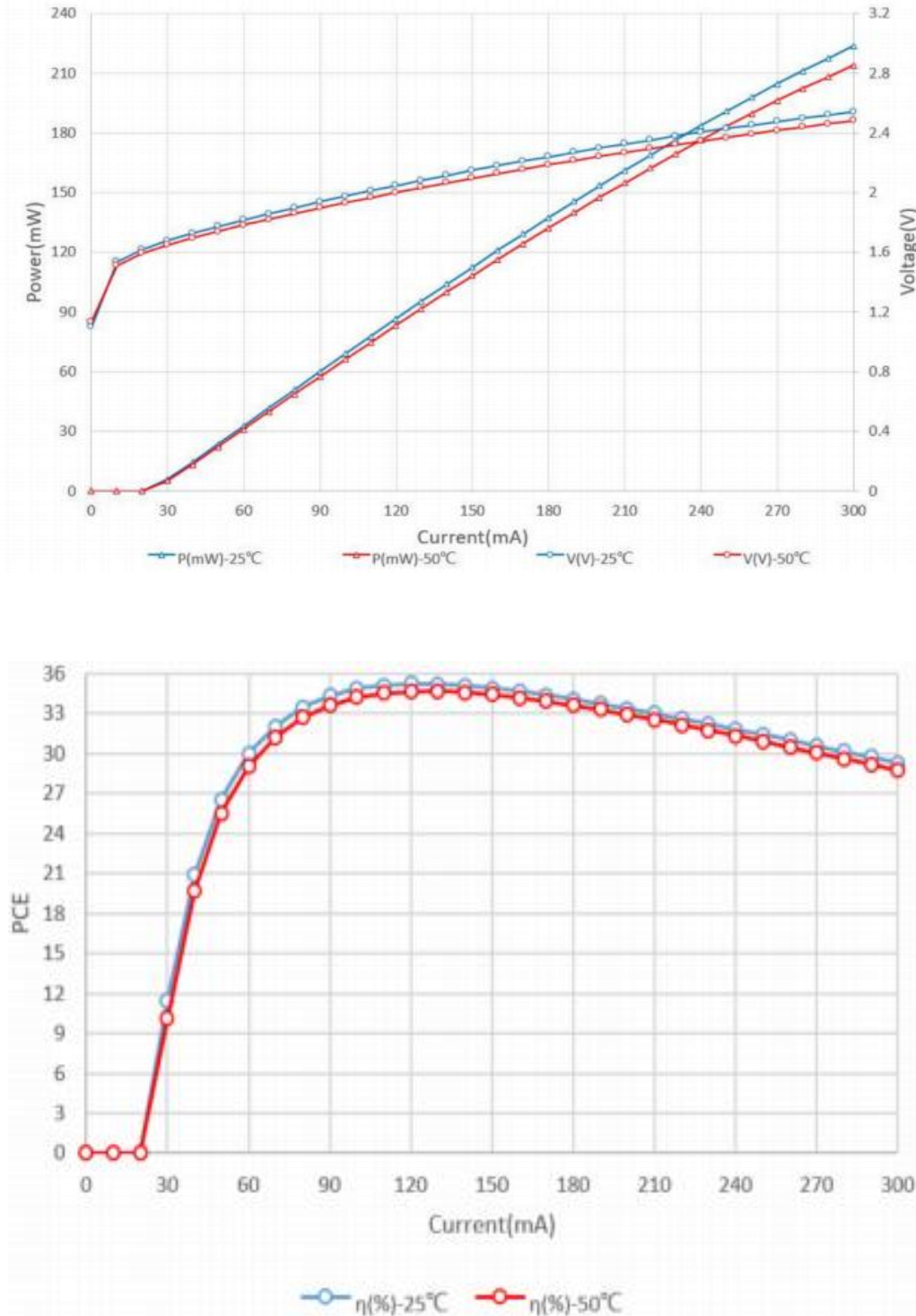
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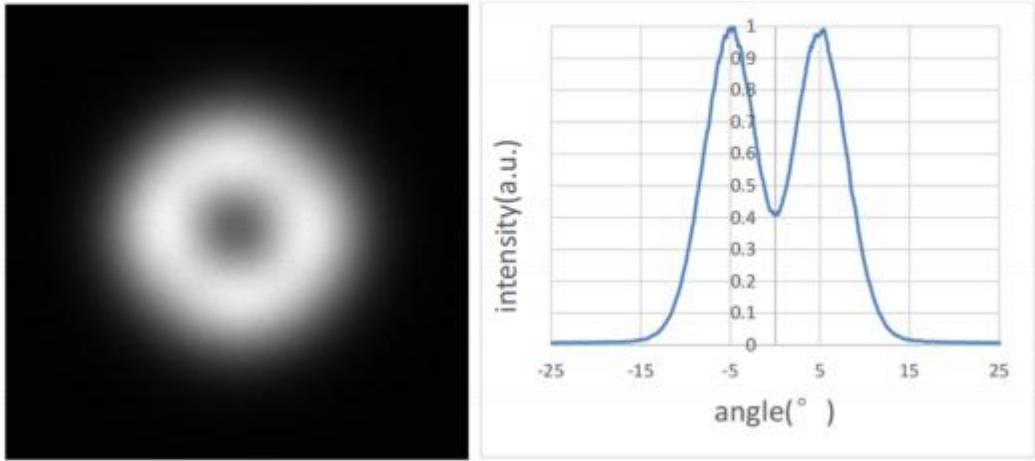
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Far Field profile



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Electrical Optical Characteristics

Parameters	Symbol	Min	Typical	Max	Units	Test Condition
Optical Output Power	P_{OP}	140	156	-	mW	Pulse 210mA 25°C
Threshold Current	I_{th}	10	26	40	mA	Pulse 25°C
Operating Current	I_{op}	-	210	-	mA	Pulse 25°C.
Differential resistance	R_s	1	4	5	Ω	Pulse 210mA 25°C
Operating Voltage	V_{op}	1.5	2.3	2.4	V	Pulse 210mA 25°C
Slope Efficiency	η_s	0.8	0.9	-	W/A	Pulse 210mA 25°C
Power Conversion Efficiency	PCE	30	33	-	%	Pulse 210mA 25°C
Wavelength	λ_{peak}	840	850	860	nm	Pulse 210mA 25°C
Beam Full Divergence (1/e ²)	φ	17	21	25	°	Pulse 210mA 25°C

The electrical and optical characteristics listed in this document were obtained under the following conditions: 25 degrees Celsius, QCW mode (I_{op} =210mA, pulse width: 0.5ms, pulse duty cycle: 1%).

Unless otherwise specified, please refer to these conditions.



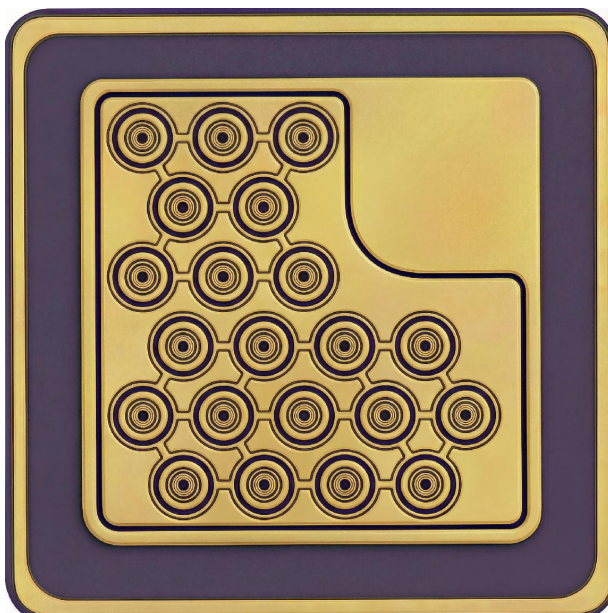
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Mechanical Specifications



Parameter	Ratings	Units
Number of emitters	24	#
Chip Width	240	μm
Chip Length	264	μm
Anode Contact	Emission side, Au surface	/
Die Thickness	130	μm
Cathode Contact	Backside, Au surface	/



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