

MORE LIGHT

JOLD-x-CAFN-xA

Vertical diode laser stacks: cw, actively cooled, with collimation, 9xx nm

Designs

- 210480426 (4 submounts)
- 210480626 (6 submounts)
- 210480826 (8 submounts)
- 210481026 (10 submounts)
- 210481226 (12 submounts)

Features

- High optical output power of 54 W cw per bar after collimation
- Wavelengths: 938 and 976 nm
- High efficiency, low divergences
- Lifetime > 10,000 h, high reliability

Applications

- Pumping of solid-state lasers and fiber lasers
- Material processing
- Medical applications (e.g. hair removal)

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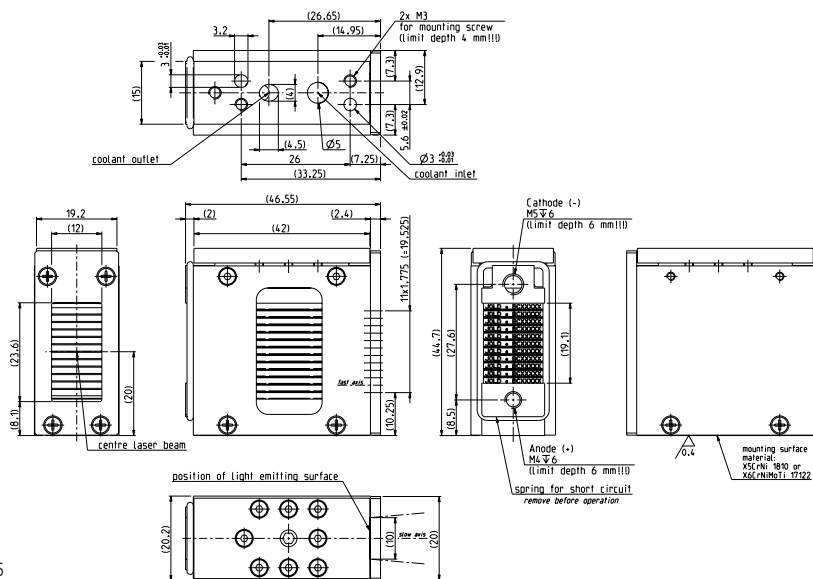
JOLD-x-CAFN-xA Designs 210480426 (4 submounts), 210480626 (6 submounts), 210480826 (8 submounts), 210481026 (10 submounts), 210481226 (12 submounts)

Specifications (start of life)

Operation Mode	cw, power modulation only between threshold and maximum current										
Maximum Optical Output Power	216	324	432	540	648	180	270	360	450	540	W
Number of Submounts	4	6	8	10	12	4	6	8	10	12	
Power per Submount after Collimation	54	54	54	54	54	45	45	45	45	45	W
Center Wavelength at 25 °C	938										nm
Center Wavelength Variation at 25 °C	5	5	5	5	5	5	5	5	5	5	nm
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	3	3	3	3	3	nm
Maximum Spectral Bandwidth (FWHM)	4	4	4	4	4	4	4	4	4	4	nm
Typical Operation Current	67	67	67	67	67	56	56	56	56	56	A
Maximum Operation Current	75	75	75	75	75	60	60	60	60	60	A
Typical Threshold Current	12	12	12	12	12	10	10	10	10	10	A
Maximum Threshold Current	14	14	14	14	14	12	12	12	12	12	A
Typical Slope	4.0	5.9	7.9	9.9	11.8	4.0	5.9	7.9	9.8	11.8	W/A
Minimum Slope	3.4	5.1	6.8	8.5	10.2	3.6	5.4	7.2	9.0	10.8	W/A
Maximum Operating Voltage	8	12	15	19	23	8	11	15	18	22	V
Fast Axis Divergence (Full Power)	< 0.5					< 0.5					°
Typical Slow Axis Divergence FWHM	5	5	5	5	5	6	6	6	6	6	°
Typical Slow Axis Divergence 86 %	5	5	5	5	5	6	6	6	6	6	°
Typical Slow Axis Divergence 95 %	7	7	7	7	7	7	7	7	7	7	°
Operation Conditions	Cleanroom class ISO 5, non-condensing atmosphere										
Expected Lifetime	> 10,000 h (constant current)										
Cooling											
Number of Submounts	4	6	8	10	12						
Flow Rate	1.7	2.3	3.0	3.6	4.3	l/min					
Flow Rate Tolerance	± 10 %										
Water Temperature	15 ... 35 °C										
Maximum Inlet Pressure	400 kPa										
Pressure Drop	< 200 kPa										
Water Quality	Deionized 2 ... 6 µS/cm, mixed bed ion exchanger, particle filter < 25 µm (not included)										

See general user information!

Options on request: 915 nm; for additional designs or specifications please visit our website: www.jenoptik.com



Design 210481226