



JOLD-x-CANN-xA

Vertical diode laser stacks: cw, actively cooled, 807 nm

Designs

- 210480424 (4 submounts)
- 210480624 (6 submounts)
- 210480824 (8 submounts)
- 210481024 (10 submounts)
- 210481224 (12 submounts)

Features

- High optical output power of 50 W cw per bar
- Wavelength: 807 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)

Vertical diode laser stacks | cw, actively cooled, 807 nm

JOLD-x-CANN-xA

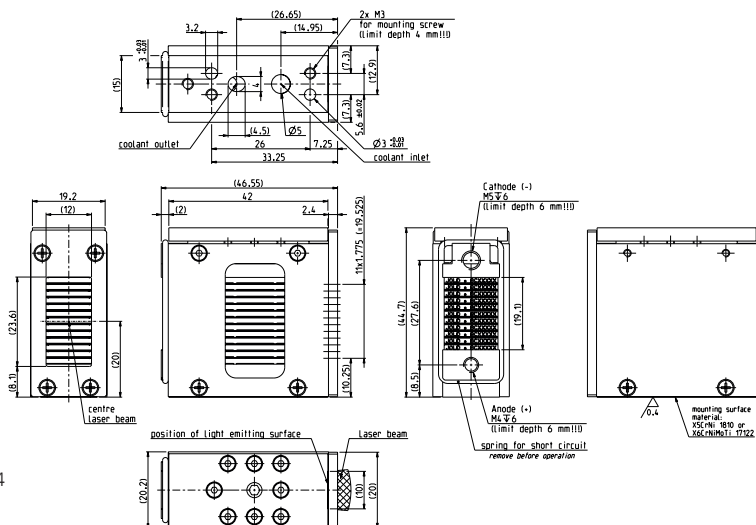
JOLD-x-CANN-xA Designs 210480424 (4 submounts), 210480624 (6 submounts), 210480824 (8 submounts), 210481024 (10 submounts), 210481224 (12 submounts)

Specifications (start of life)

Operation Mode	cw, power modulation only between threshold and maximum current					
Maximum Optical Output Power	200	300	400	500	600	W
Number of Submounts	4	6	8	10	12	
Power per Submount	50	50	50	50	50	W
Center Wavelength at 25 °C	807	807	807	807	807	nm
Center Wavelength Variation at 25 °C	3	3	3	3	3	nm
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	nm
Maximum Spectral Bandwidth (FWHM)	4	4	4	4	4	nm
Typical Operation Current	56	56	56	56	56	A
Maximum Operation Current	60	60	60	60	60	A
Typical Threshold Current	14	14	14	14	14	A
Maximum Threshold Current	18	18	18	18	18	A
Typical Slope	4.8	7.2	9.6	12.0	14.3	W/A
Minimum Slope	4.3	6.5	8.6	10.8	13.0	W/A
Maximum Operating Voltage	8	12	16	20	24	V
Typical Fast Axis Divergence FWHM	37	37	37	37	37	°
Typical Fast Axis Divergence 86 %	48	48	48	48	48	°
Typical Fast Axis Divergence 95 %	63	63	63	63	63	°
Typical Slow Axis Divergence FWHM	6	6	6	6	6	°
Typical Slow Axis Divergence 86 %	6	6	6	6	6	°
Typical Slow Axis Divergence 95 %	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 5 ... 10 µS/cm, regulated mixed-bed ion exchange system in bypass, particle filter < 15 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 210481224

