

MORE LIGHT

JOLD-x-CABN-xA

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

Designs

- 210436126 (4 submounts)
- 210436226 (6 submounts)
- 210436326 (8 submounts)
- 210436426 (10 submounts)
- 210436526 (12 submounts)

Features

- High optical output power of 50 W cw per bar after collimation (in fast and slow axis)
- 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)

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

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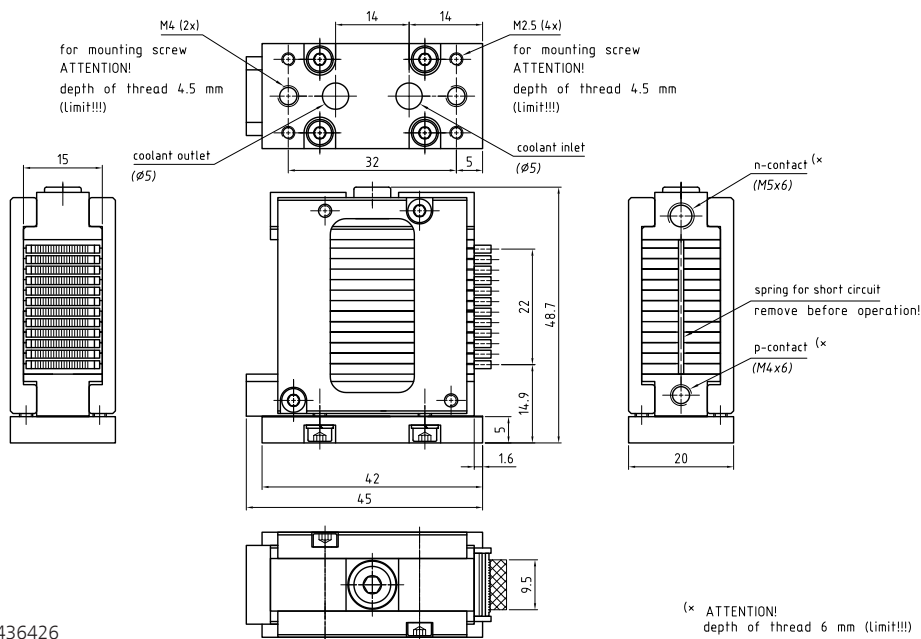
JOLD-x-CABN-xA Designs 210436126 (4 submounts), 210436226 (6 submounts), 210436326 (8 submounts), 210436426 (10 submounts), 210436526 (12 submounts)

Specifications (start of life)

| | | | | | | | | | | | |
|--------------------------------------|--|-----|-----|-----|------|-------|-----|-----|-----|------|-------|
| Operation Mode | cw, power modulation only between threshold and maximum current | | | | | | | | | | |
| Maximum Optical Output Power | 200 | 300 | 400 | 500 | 600 | 200 | 300 | 400 | 500 | 600 | W |
| Number of Submounts | 4 | 6 | 8 | 10 | 12 | 4 | 6 | 8 | 10 | 12 | |
| Power per Submount after Collimation | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | W |
| Center Wavelength at 25 °C | 938 | 938 | 938 | 938 | 938 | 976 | 976 | 976 | 976 | 976 | 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) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | nm |
| Typical Operation Current | 60 | 60 | 60 | 60 | 60 | 64 | 64 | 64 | 64 | 64 | A |
| Maximum Operation Current | 66 | 66 | 66 | 66 | 66 | 70 | 70 | 70 | 70 | 70 | A |
| Typical Threshold Current | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | A |
| Maximum Threshold Current | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | A |
| Typical Slope | 3.8 | 5.6 | 7.5 | 9.3 | 11.2 | 3.5 | 5.2 | 6.9 | 8.7 | 10.4 | W/A |
| Minimum Slope | 3.3 | 5.0 | 6.6 | 8.3 | 10.0 | 3.1 | 4.6 | 6.2 | 7.8 | 9.3 | 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 | | | | | ° |
| Slow Axis Divergence (Full Power) | < 4 | | | | | < 4 | | | | | ° |
| 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: For additional designs or specifications please visit our website: www.jenoptik.com



Design 210436426