



JENOPTIK

Open heat sink diode lasers: cw & qcw, passively cooled | with collimation

JOLD-x-CPBN-1L | JOLD-x-CPFN-1L | JOLD-x-QPFN-1L

Design 215507226

Design 215507126

Design 215507126

Features

- High optical output power up to 35 W cw, 90 W qcw after collimation
- Wavelengths: 808, 880, 915, 938 and 976 nm
- High efficiency, low divergences
- Long lifetime > 20,000 h, high reliability

Applications

- Pumping of solid-state lasers
- Print applications
- Medical applications

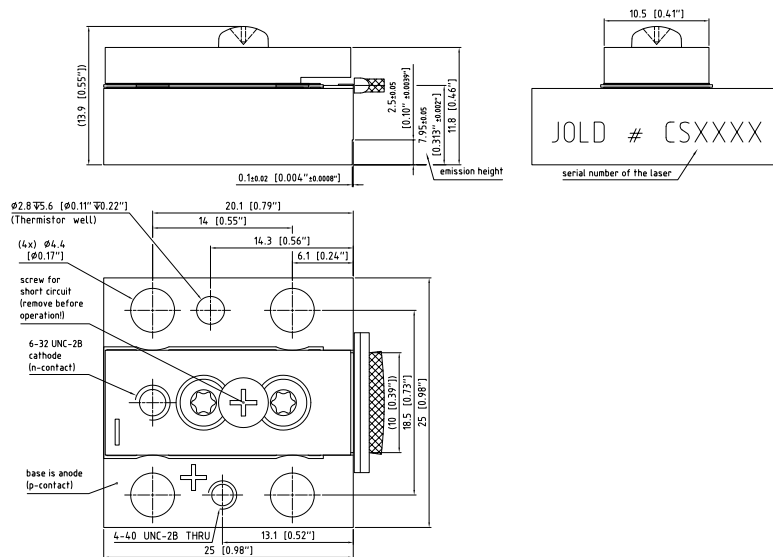
Open heat sink diode lasers | cw & qcw, passively cooled | with collimation

JOLD-x-CPBN-1L | JOLD-x-CPFN-1L | JOLD-x-QPFN-1L

	JOLD-32-CPBN-1L Design 215507226					JOLD-35-CPFN-1L Design 215507126					JOLD-90-QPFN-1L Design 215507126		
Specifications (start of life)													
Operation Mode	cw/pulsed											qcw	
Maximum Pulse Length/Duty Cycle												≤ 0.3 ms/≤10 %	
Max. Optical Output Power after Collimation	32	32	32	32	32	35	35	35	35	35	90	90	W
Center Wavelength at 25 °C	808	880	915	938	976	808	880	915	938	976	808	938	nm
Center Wavelength Variation at 25 °C	3	3	5	5	5	3	3	5	5	5	5	5	nm
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	3	3	3	3	3	3	3	nm
Maximum Spectral Bandwidth (FWHM)	4	5	4	4	4	4	5	4	4	4	5	5	nm
Typical Operation Current	40	43	42	42	44	40	43	42	42	44	105	120	A
Maximum Operation Current	45	47	47	47	47	45	47	47	47	47	120	130	A
Typical Threshold Current	7	9	6	6	6	7	9	6	6	6	18	20	A
Maximum Threshold Current	10	12	9	9	9	10	12	9	9	9	20	25	A
Typical Slope	1.00	0.95	0.90	0.90	0.85	1.10	1.05	1.00	1.00	0.95	1.05	0.90	W/A
Minimum Slope	0.80	0.80	0.75	0.75	0.75	0.90	0.90	0.85	0.85	0.85	0.85	0.80	W/A
Maximum Operating Voltage	2.0	2.0	1.8	1.8	1.8	2.0	2.0	1.8	1.8	1.8	2.2	2.2	V
Fast Axis Divergence (Full Power)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	°
Slow Axis Divergence (Full Power)	< 4	< 4	< 4	< 4	< 4								°
Typical Slow Axis Divergence FWHM						6	6	6	6	6	12	7	°
Typical Slow Axis Divergence 86 %						6	6	6	6	6	12	8	°
Typical Slow Axis Divergence 95 %						7	7	7	7	8	15	12	°
Anode, Cathode Connectors	Threads 4-40 UNC-2B, 6-32 UNC-2B												
Operation Conditions	Cleanroom class ISO 5, non-condensing atmosphere												
Expected Lifetime	> 20,000 h (constant current)											> 1 GShot	
Cooling													
Mounting	Via thermally conductive foil (thickness 25 ... 100 µm) on cooled surface (water cooled plate or TEC)												
Note	Do not mount via any paste-like media!												
Operation Temperature	15 ... 30 °C, measured with temperature sensor in heat sink												

See general user information!

Options on request: 88x nm; for additional designs or specifications please visit our website: www.jenoptik.com



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