



JENOPTIK

Open heat sink diode lasers: cw, passively cooled JOLD-x-CPNN-1L

Design 215507124

Features

- High optical output power up to 100 W cw
- 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, passively cooled

JOLD-x-CPNN-1L

Specifications (start of life)

JOLD-x-CPNN-1L Design 215507124

Operation Mode	cw/pulsed								
Maximum Optical Output Power	40	60	80	80	80	80	100	100	W
Center Wavelength at 25 °C	808	808	880	915	938	976	938	976	nm
Center Wavelength Variation at 25 °C	3	3	3	5	5	5	5	5	nm
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	3	3	3	nm
Maximum Spectral Bandwidth (FWHM)	4	5	5	5	5	5	5	5	nm
Typical Operation Current	40	59	81	79	79	83	112	116	A
Maximum Operation Current	45	65	91	89	89	93	122	126	A
Typical Threshold Current	7	10	9	6	6	6	14	14	A
Maximum Threshold Current	10	13	12	10	9	9	18	18	A
Typical Slope	1.25	1.25	1.15	1.10	1.10	1.05	1.05	1.0	W/A
Minimum Slope	1.05	1.05	0.95	0.95	0.95	0.90	0.90	0.85	W/A
Maximum Operating Voltage	2.0	2.0	1.8	1.8	1.8	1.8	1.8	1.8	V
Typical Fast Axis Divergence FWHM	35	35	27	27	27	28	27	28	°
Typical Fast Axis Divergence 86 %	45	47	34	34	34	36	34	36	°
Typical Fast Axis Divergence 95 %	60	63	46	46	46	47	46	47	°
Typical Slow Axis Divergence FWHM	6	6	7	6	6	6	6	6	°
Typical Slow Axis Divergence 86 %	6	7	7	7	7	7	7	7	°
Typical Slow Axis Divergence 95 %	7	9	8	9	9	9	8	8	°
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), partly under qualification								
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

