



JENOPTIK

Open heat sink diode lasers: qcw, passively cooled | with(out) collimation | high power JOLD-x-QPNN-1L | JOLD-x-QPFN-1L

JOLD-250-QPNN-1L | Design 215507124

JOLD-300-QPNN-1L | Design 215507124

JOLD-225-QPFN-1L | Design 215507126

JOLD-270-QPFN-1L | Design 215507126

Features

- High optical output power up to 300 W qcw without collimation & up to 270 W qcw after collimation
- Wavelength: 808 nm
- High efficiency, low divergences
- Long lifetime > 1 GShot, high reliability

Applications

- Pumping of solid-state lasers
- Illumination

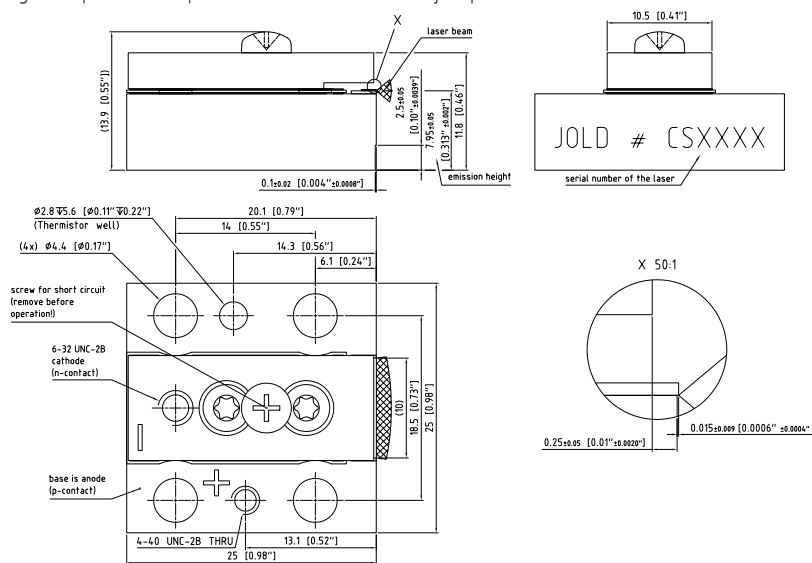
Open heat sink diode lasers | qcw, passively cooled | with(out) collimation

JOLD-x-QPNN-1L | JOLD-x-QPFN-1L

	JOLD-300-QPNN-1L	JOLD-250-QPNN-1L	JOLD-270-QPFN-1L	JOLD-225-QPFN-1L
	Design 215507124	Design 215507124	Design 215507126	Design 215507126
Specifications (start of life)				
Operation Mode	qcw	qcw	qcw	qcw
Maximum Pulse Length/Duty Cycle	≤ 0.3 ms/≤ 4 %	≤ 0.3 ms/≤ 10 %	≤ 0.3 ms/≤ 4 %	≤ 0.3 ms/≤ 10 %
Maximum Optical Output Power	300	250		W
Max. Optical Output Power after Collimation			270	225
Center Wavelength at 25 °C	808	808	808	808
Center Wavelength Variation at 25 °C	5	5	5	5
Typical Spectral Bandwidth (FWHM)	3	3	3	3
Maximum Spectral Bandwidth (FWHM)	5	5	5	5
Typical Operation Current	275	230	275	230
Maximum Operation Current	290	255	290	255
Typical Threshold Current	17	17	17	17
Maximum Threshold Current	22	22	22	22
Typical Slope	1.20	1.20	1.05	1.10
Minimum Slope	1.05	1.05	0.95	0.90
Maximum Operating Voltage	2.2	2.2	2.2	2.2
Fast Axis Divergence (Full Power)			< 0.5	< 0.5
Typical Fast Axis Divergence FWHM	35	35		
Typical Fast Axis Divergence 86 %	50	50		
Typical Fast Axis Divergence 95 %	66	66		
Typical Slow Axis Divergence FWHM	8	7	8	7
Typical Slow Axis Divergence 86 %	8	7	8	7
Typical Slow Axis Divergence 95 %	10	9	10	9
Anode, Cathode Connectors	Threads 4-40 UNC-2B, 6-32 UNC-2B			
Operation Conditions	Cleanroom class ISO 5, non-condensing atmosphere			
Expected Lifetime	> 1GShot			
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: For additional designs or specifications please visit our website: www.jenoptik.com



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