



JENOPTIK

Fiber-coupled diode lasers: cw, passively cooled with integrated TEC JOLD-30-CPXF-1L

Design 04031100124

Features

- High optical output power of 30 W cw
- Wavelengths: 806.5 nm
- Fiber core diameter: 400 μm (NA 0.22)
- Integrated power monitor
- Lifetime > 10,000 h, high reliability

Applications

- Pumping of solid-state lasers and fiber lasers
- Material processing
- Medical applications

Fiber-coupled diode lasers | cw, passively cooled with integrated TEC

JOLD-30-CPXF-1L

Preliminary specifications

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Operation Mode	cw, power modulation only between threshold and maximum current	
Maximum Optical Output Power	30	W
Center Wavelength at 25 °C	806.5	nm
Center Wavelength Variation at 25 °C	3	nm
Typical Spectral Bandwidth (FWHM)	3	nm
Maximum Spectral Bandwidth (FWHM)	4	nm
Typical Operation Current	41	A
Maximum Operation Current	45	A
Typical Threshold Current	7	A
Maximum Threshold Current	11	A
Typical Slope	0.9	W/A
Minimum Slope	0.8	W/A
Maximum Operating Voltage	2	V
Fiber Core Diameter, Numerical Aperture	400 µm, NA 0.22; free standing fiber inside F-SMA 905 towards the module	
Fiber Connector	F-SMA 905	
Power Monitor	Infineon, SFH 203	
Anode, Cathode Connectors	M5 (e.g. socket cap screw ISO 4762), M4 (threaded bolt and hex nut ISO 4032)	
Operation Conditions	Non-condensing atmosphere	
Expected Lifetime	> 10,000 h (constant current)	
Cooling		
Mounting	Via thermally conductive foil (thickness 25 ... 100 µm) on cooled surface	
Note	Do not mount via any paste-like media!	
Diode Laser Operating Temperature	15 ... 30 °C, measured with internal temperature sensor	
Temperature Sensor	PT 100 and PT 1000	
Integrated TECs	Connected in series, cold side at max. 30 °C	
Maximum Cooling Power	2 TECs x 173 W => 346 W	
Maximum TEC Voltage, Current	2 x 24.6 V => 49.2 V, 11.3 A	

See general user information!

Options on request: NTC 10 kOhm instead of PT 1000, Pilot Laser 0.5 ... 3.0 mW @ 658 nm
for additional designs or specifications please visit our website: www.jenoptik.com

