Fiber-Coupled Diode Lasers
cw, passively cooled with air or tap water

JOLD-100-CPXF-2P A
JOLD-140-CPXF-2P W

Features:
• High optical output power up to 140 W cw
• Fiber core diameter: 400 μm (NA 0.22)
• Long lifetime > 20,000 h, high reliability
• Air cooling possible

Applications:
• Pumping of solid-state lasers and fiber lasers
• Material processing
• Medical applications
Fiber-Coupled Diode Lasers
cw, passively cooled with air or tap water

Preliminary Specifications (Start of Life)

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**Operation Mode**
- cw, power modulation only between threshold and maximum current

**Maximum Optical Output Power**
- 80 W
- 100 W
- 100 W
- 140 W
- 140 W
- 140 W

**Center Wavelength at 25 °C**
- 880 nm
- 915 nm
- 938 nm
- 976 nm

**Center Wavelength Variation at 25 °C**
- 5 nm
- 5 nm
- 5 nm
- 3 nm

**Typical Spectral Bandwidth (FWHM)**
- 5 nm
- 5 nm
- 5 nm
- 5 nm

**Maximum Spectral Bandwidth (FWHM)**
- 6 nm
- 6 nm
- 6 nm
- 6 nm

**Typical Operation Current**
- 90 A
- 85 A
- 85 A
- 85 A
- 95 A
- 95 A
- 95 A
- 95 A

**Maximum Operation Current**
- 105 A
- 100 A
- 100 A
- 100 A
- 105 A
- 105 A
- 105 A
- 105 A

**Typical Threshold Current**
- 9 A
- 6 A
- 6 A
- 6 A
- 9 A
- 6 A
- 6 A
- 6 A

**Maximum Threshold Current**
- 12 A
- 9 A
- 9 A
- 9 A
- 12 A
- 9 A
- 9 A
- 9 A

**Typical Slope**
- 4.5 W/A
- 4.5 W/A
- 4.5 W/A
- 4.5 W/A

**Minimum Slope**
- 1.3 W/A
- 1.3 W/A
- 1.3 W/A
- 1.3 W/A

**Maximum Operating Voltage**
- 4.5 V
- 4.5 V
- 4.5 V
- 4.5 V

**Rated Power Connector**
- F-SMA 905, potential free; metal armored patchcord only!

**Power Monitor**
- Infineon, SFH 229

**Pilot Laser**
- 0.5 ... 3 mW, 650 nm ± 15 nm, 3 ... 5 V, 40 ± 15 mA, power not adjustable

**Anode, Cathode Connectors**
- M8, M6 (e.g. socket cap screws ISO 4762)

**Signal Connector**
- D-Sub, male, 15 pin

**Operation Conditions**
- Non-condensing atmosphere

**Expected Lifetime (Constant Current)**
- > 10,000 h
- > 20,000 h, partly under qualification; 808 nm: 10,000 h

**Cooling:**
- Flow Rate: > 3 l/min
- Water Temperature: 8 ... 20 °C
- Water Pressure: 400 kPa maximum inlet and outlet pressure, < 80 kPa
- Water Connectors: Ø 6 mm push-in fittings
- Water Quality: Industrial water, unfiltered up to a particle size of 0.5 mm

**Diode Laser Operating Temperature**
- 15 ... 55 °C, measured with internal sensor
- 15 ... 35 °C, measured with internal sensor

**Integrated Temperature Sensor**
- PT 100 (PT 1000 or NTC 10 k optional), separately for each diode laser

**Note**
- Specify exact wavelength needed with your order

*See General User Information!*

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