

# FIBER-COUPLED SINGLE BAR DIODE LASER MODULE

**808 nm, 50 W, 200  $\mu\text{m}$   $\varnothing$ ,  
Conduction-Cooled, CW, Fully-Featured**

Our fiber-coupled single bar modules deliver outstanding optical performance across a broad wavelength range from 630 nm to 2  $\mu\text{m}$ , supporting output powers up to 50 W continuous wave (CW) and 250 W quasi-continuous wave (QCW). Designed for high-demand environments, these modules combine reliability, efficiency, and configurability in a compact footprint. Available with fiber core diameters starting from 100  $\mu\text{m}$ , the modules offer a wide range of customizable features including line narrowing, wavelength stabilization, and integrated monitoring options for real-time performance feedback and control.



## FEATURES

- High coupling efficiency
- High brightness
- Sealed housing
- Standard fiber coupling (HP-SMA) for 200  $\mu\text{m}$  NA 0.22

## INCLUDING

- NTC temperature sensor
- Monitor photo diode
- Pilot beam (650 nm, <2 mW)
- Exchangeable blast shield
- Fiber plug control

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## Device Specification

Optical Parameters <sup>1</sup>		SS5.2
Center Wavelength Range <sup>3</sup> (nm)		808
Center Wavelength Tolerance <sup>3</sup> (nm)		±10
Output Power <sup>2</sup> (W)		50
Operating Condition		CW
Spectral Width (FWHM) (nm)		≤4
Slope Efficiency (W/A)		≥0.8
Wavelength Temp. Coefficient (nm/°C)		~0.27
Fiber Parameters		
Fiber Connector		SMA
Fiber Core Diameter (μm)		200
Fiber Cladding Diameter (μm)		-
Fiber Coating Diameter (μm)		-
Fiber Loose Tubing Diameter (mm)		-
Numerical Aperture (NA)		0.22
Fiber Length (m)		-
Fiber Termination		-
Electrical Parameters <sup>1</sup>		
Power Conversion Efficiency (%)		≥38
Threshold Current (I <sub>TH</sub> ) (A)		≤9
Operating Current (I <sub>OP</sub> ) (A)		≤70
Operating Voltage (V <sub>OP</sub> ) (V)		≤1.9
Duty Cycle <sup>3</sup> (%)		-
Pulse Length <sup>3</sup> (μsec)		-
Thermal Parameters <sup>1</sup>		
Operating Temperature Range <sup>3,4</sup> (°C)		+20 to +30
Storage Temperature Range <sup>3,4</sup> (°C)		0 to +55
Recommended Heatsink Capacity (W)		≥70
Part Number(s)		
M1F2S22-808.10-50C-SS5.2M2P1T3		100407365

Notes:

1. Data at 25°C cold plate temperature.
2. Reduced lifetime if used above nominal operating conditions.
3. Others available upon request.
4. A non-condensing environment is required for storage and operation below the ambient dew point.

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## Package Dimension

