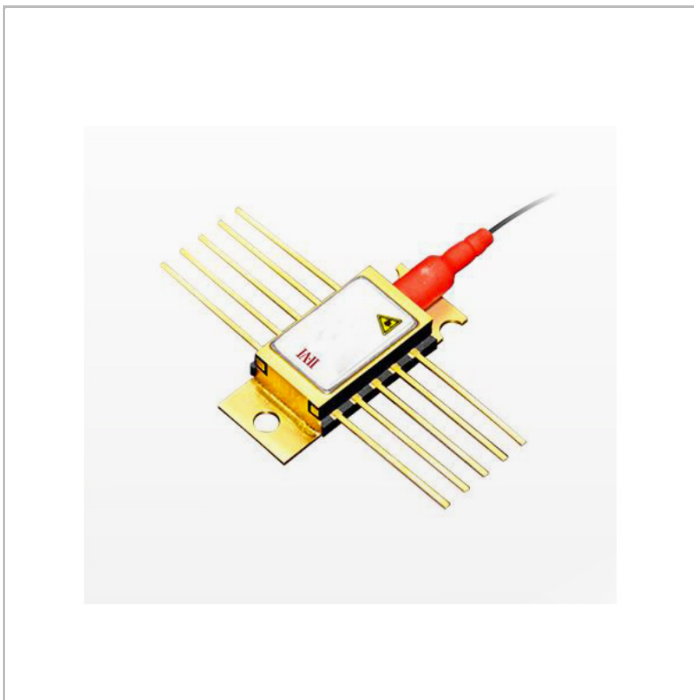




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LASER LAB SOURCE

manufactured by **II-VI**

1030nm DFB Laser Diode Single-Mode, Wavelength Stabilized



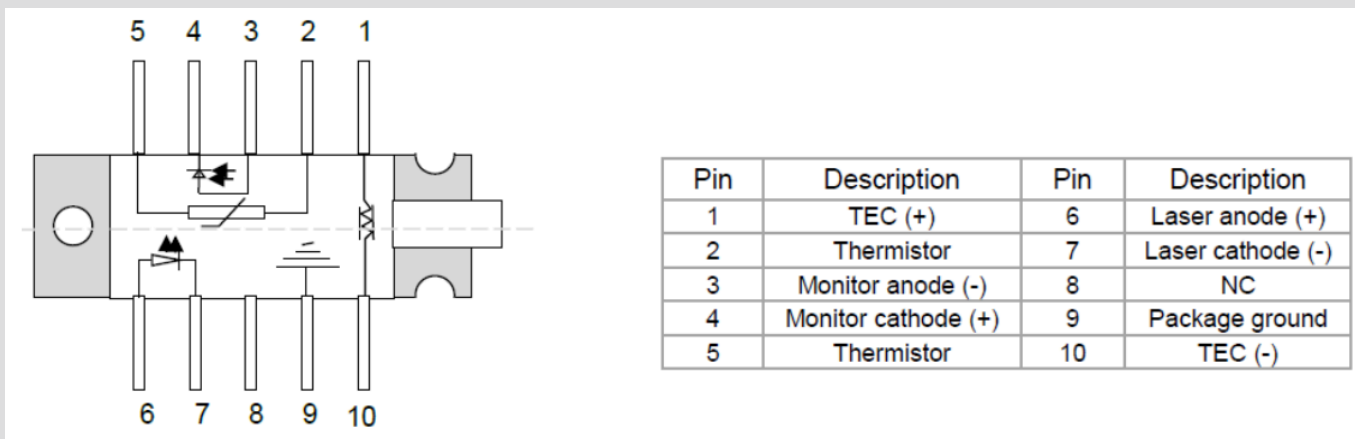
1030nm DFB Butterfly Laser Diode

- o Part Number CMDFB1030A
- o CW Output Power up to 200 mW
- o Pulsed Output Power up to 800 mW
- o 10-Pin Compact Butterfly Package
- o Nufern PM980-HP Fiber
- o Internal TEC, Thermistor, Monitor Diode

SINGLE MODE, SINGLE FREQUENCY DFB LASER DIODE

These DFB lasers offer a single longitudinal mode (single frequency) emission profile with up to 200mW CW output power and 800mW in Short Pulse mode. DFB lasers utilize Bragg diffraction gratings in the active gain region of the semiconductor material to form a waveguide. The high stability and wavelength tuneability make them an excellent choice for sensing, spectroscopy, metrology, telecom, and atomic physics research applications.

These laser diodes are offered in a 10-pin butterfly package with a polarization-maintaining fiber pigtail. They have an integrated thermoelectric cooler, an internal 10 k Ω thermistor, and monitor photodiode.





OPTICAL AND ELECTRICAL SPECIFICATIONS

- Wavelength: 1030 nm (± 2 nm)
- Pulsed Output Power: 400 mW
- CW Output Power: 200 mW
- Threshold Current: 40 mA
- Operating Current: 400 mA (CW)
- Operating Voltage: 2 V
- Wavelength Shift w/Temperature: 0.35 nm/mA

PULSE MODULATION

- Optical Pulse Width: 10 - 200 ns
- Peak Pulsed Current: 800 mA
- Pulsed Peak Power: 400 mW
- Duty Cycle: 5%

SHORT PULSE MODULATION

- Optical Pulse Width: 0.1 - 10 ns
- Short Peak Pulsed Current: 1600 mA (max)
- Short Pulsed Peak Power: 800 mW (typ)
- SMSR: 20 dB (min)
- Duty Cycle: 1%
- Chip Series Resistance: 2 Ω
- Chip Capacitance: 50 pF

FIBER SPECIFICATIONS

- Fiber Type: Nufern PM980-HP or Fujikura SM98
- Mode Field Diameter: 6.6 μm
- Buffer Diameter: 250 μm
- Fiber Length: 1 m
- Fiber Termination: Ferrule

ABSOLUTE MAXIMUM RATINGS

- Storage Temperature: -40°C to 58°C
- CW Laser Forward Current: 1.5 A
- Laser Reverse Voltage: 2 V
- Heat Pump Current: 2.2 A
- Heat Pump Voltage: 3.5 V
- Lead Soldering Temperature: 350°C
- Fiber Bend Radius: 20mm (min)





PRODUCT SALES AND SERVICE:

Orders for this product are fulfilled by Laser Lab Source in North America and select international regions. It is manufactured by II-VI Laser Enterprise.

PRODUCT WARRANTY:

This product is sold with a full one-year warranty. It is warranted to be free from defects in material and/or workmanship for a period of one year from the date of shipment.



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