



1060nm Laser Diode with Fiber-Bragg Grating 700 mW CW Output Power / 1500 mW Pulsed Power



1064LD-1-0-6 / LASER-DIODE

FEATURES

- o Up to 700mW CW Output Power
- o Includes Fiber Bragg Grating
- o PM Fiber SM98-PS-U25D-H
- o Bare Fiber Termination (FC/APC on request)
- o Integrated TE Cooler, Thermistor, Monitor PD
- o Hermetically Sealed 10-Pin Butterfly Package

APPLICATIONS

- o Fiber Laser Systems
- o Frequency Conversion
- o Spectroscopy

Note: this laser diode is based on a Fabry-Perot technology with Bragg grating. The laser pulse takes ~100 ns to lock on the Bragg Wavelength. Short pulses have a significantly broader bandwidth than 1 nm.

1064NM GRATING STABILIZED LASER DIODE

This wavelength stabilized high power laser module has been designed as a light source for pulsed narrow bandwidth fiber laser and direct frequency conversion applications.

A fiber Bragg grating (FBG) is located within the fiber about 1 m from the laser diode butterfly module. The small back-reflection generated by the FBG allows to get a very stable and narrow emission spectrum at the center wavelength of 1060 nm \pm 0.5 nm. It is not possible to tune the wavelength by tuning the laser diode chip temperature as the FBG "locks" the wavelength at 1060 nm.



1064NM FIBER BRAGG GRATING DFB SPECIFICATIONS

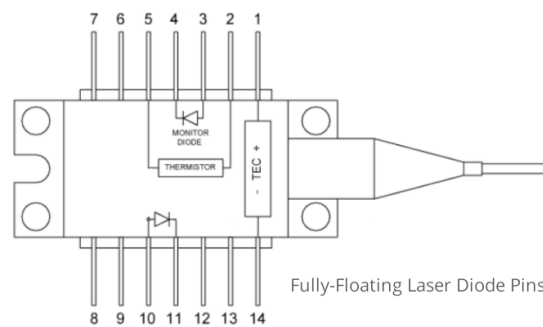
OPTICAL AND ELECTRICAL SPECIFICATIONS (TYPICAL)

- Wavelength: 1060 nm (\pm 0.5 nm)
- Pulsed Output Power (max): 1.5 Watts
- CW Output Power(max): 700 mW
- Threshold Current: 70 mA
- Operating Current: 1200 mA
- Operating Voltage: 1.7 V
- Spectral Width (CW, FWHM, max): 0.2 nm
- Spectral Width (Pulsed, FWHM, max): 1.0 nm
- Polarization Extinction Ratio: > 13 dB
- Internal Photodiode Responsivity: > 0.5 mA/W
- TEC Current: < 1.4 Amps
- TEC Voltage: < 3.2 Volts
- Internal Thermistor (25°C): 10k Ω

FIBER PIGTAIL

- PM fiber: SM98-PS-U25D-H or Nufern PM980
- Mode Field Diameter: 6 μ m
- Buffer Diameter: 250 μ m
- Fiber Termination: Ceramic Ferrule (FC/APC optional ~ request information)
- Includes Fiber Bragg Grating (Optionally available without grating; please inquire)

Butterfly Laser Type-1 Pinout



1	TEC (+)	8	NC
2	Thermistor	9	NC
3	PD Anode (+)	10	LD Anode (+)
4	PD Cathode (-)	11	LD Cathode (-)
5	Thermistor	12	NC
6	NC	13	Case Ground
7	NC	14	Thermistor (-)



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