



## G081PU11500M



### TECHNICAL DATA

## High Power Fiber Coupled Infrared Laser Diode

#### Features

- CW Output Power: 1.5 W
- Typical 808 nm Emission Wavelength
- High Reliability
- High Efficiency

#### Applications

- Laser Pumping
- Medical Usage
- Printing
- Heating
- Material Dealing
- Marking

#### *Specifications (25°C)*

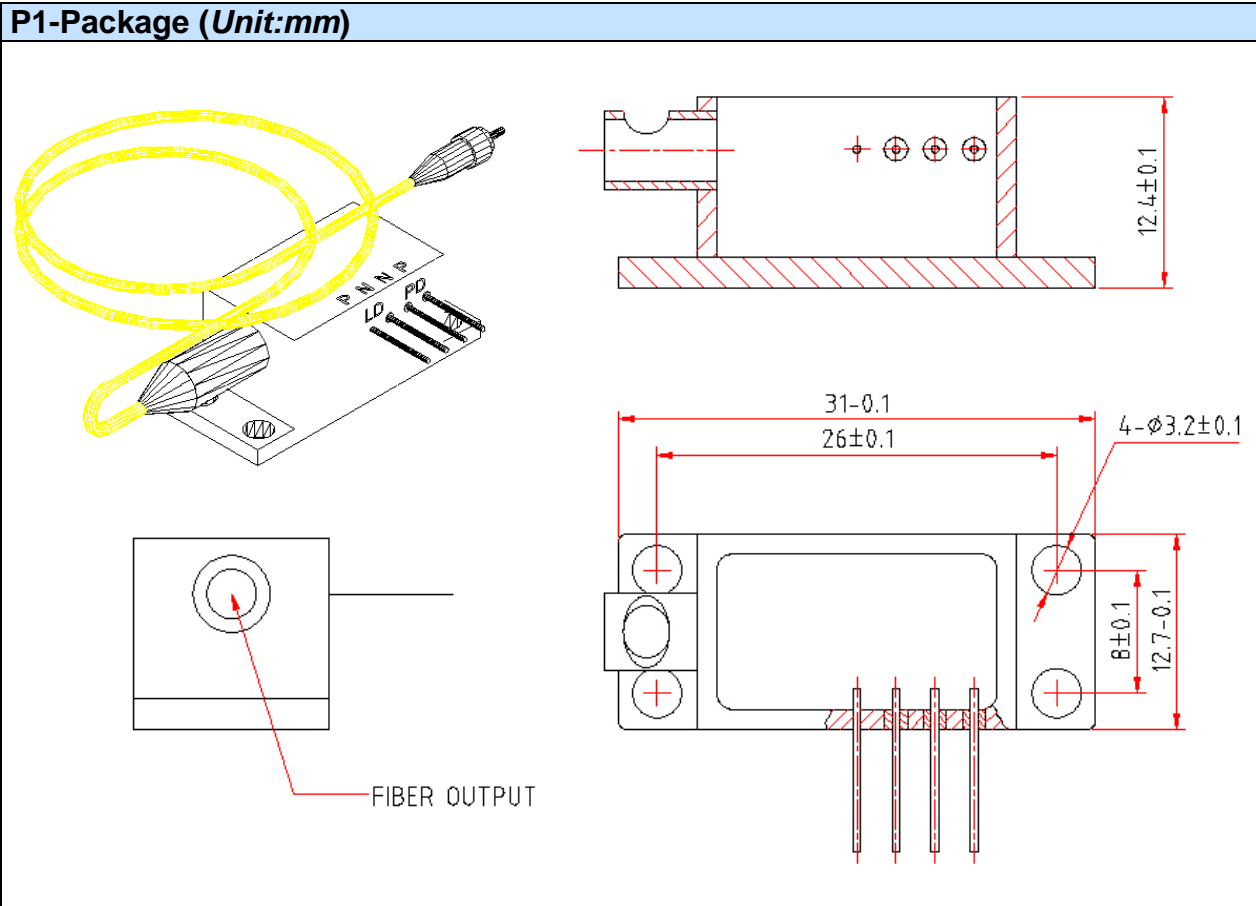
| Type                               | G081PU11500M  | Unit          |
|------------------------------------|---------------|---------------|
| <b>Optical Specification</b>       |               |               |
| CW Output Power from Fiber $P_F$   | 1.5           | W             |
| Center Wavelength $\Delta_C$       | 808           | nm            |
| Wavelength Tolerance               | 800 – 820     | nm            |
| Spectral Width $\Delta\lambda$     | < 4           | nm            |
| Wavelength Temperature Coefficient | 0.3           | nm/°C         |
| <b>Fiber Characteristics</b>       |               |               |
| Fiber Core Size                    | 100           | $\mu\text{m}$ |
| N.A.                               | 0.22          |               |
| Fiber Length                       | 1             | m             |
| Connector                          | FC/ST/SMA-905 |               |
| <b>Electrical Specification</b>    |               |               |
| Slope Efficiency $E_S$             | > 0.75        | W/A           |
| Threshold Current $I_{th}$         | 500           | mA            |
| Operation Current $I_O$            | 2500          | mA            |
| Operation Voltage $V_f$            | < 2           | V             |
| Series Resistance $R_d$            | < 0.2         | $\Omega$      |
| Package Style                      | P1-Package    |               |
| <b>Absolute Maximum Ratings</b>    |               |               |
| Reverse Voltage $V_r$              | 2             | V             |
| Operating Temperature $T_O$        | -10 ... 45    | °C            |
| Storage Temperature $T_{stq}$      | -40 ... 85    | °C            |





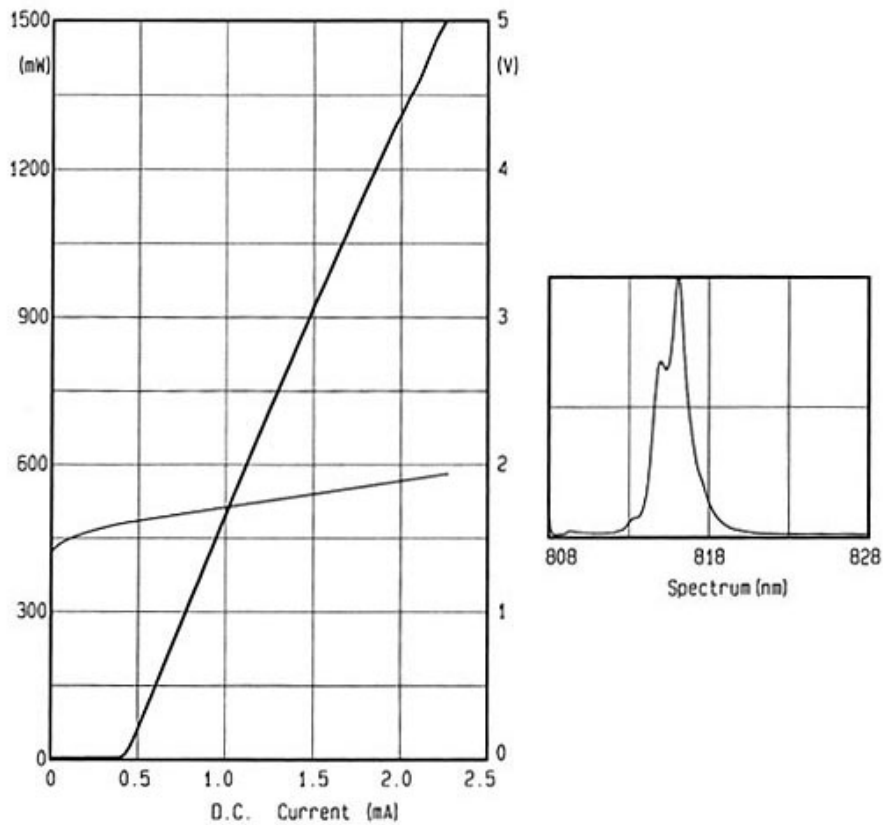
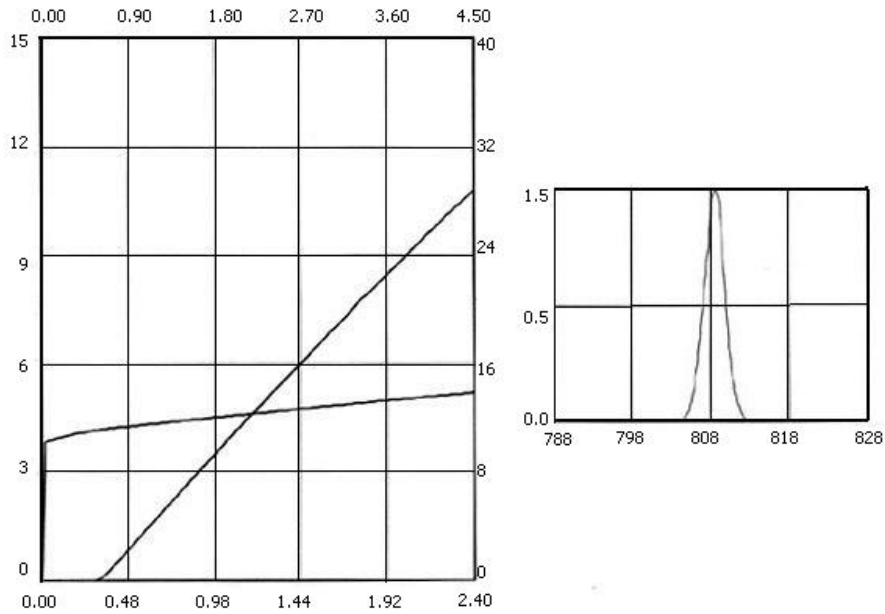
## Package Dimensons

### P1-Package (Unit:mm)





## Typical Performance Curves





## Notes

1. Laser beam is harmful especially for your eyes. Don't look at the laser beam directly.
2. Lifetime of the diode laser varied with the operating temperature inversely. We advise that the TEC cooler should be used to keep the temperature suitable.
3. For turning on the diode laser, please increase the current gradually to the specified operating value. For shutting down the diode laser, please decrease the current to zero gradually, and then turn off the power.
4. Please wear staticproof bracelet when operating.
5. Please connect the pins of the diode laser correctly as the picture shown in the manual.
6. The operating current must less than the rated current. Otherelse the diode laser should be damaged.
7. The fiber facet should be keep clean befor the diode laser is operating.
8. Please use the constant-current source to avoid the surge.
9. Diode laser should be short circuit when stop using.
10. Bend diameter of the fiber must be larger than 4cm temporarily and 8cm permanently.