

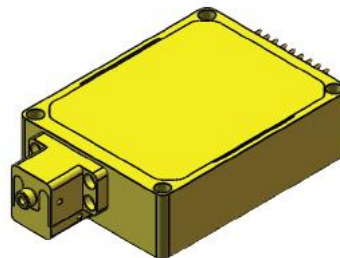
# 520nm Laser Diode

## ■ Features

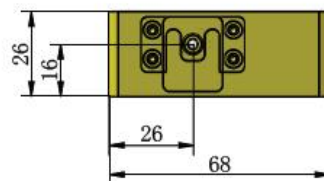
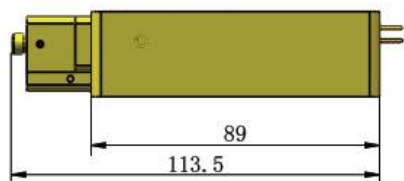
- ◆ High output power of 7W
- ◆ 100μm/0.22NA multimode optical fiber
- ◆ Center wavelength 520±10nm

## ■ Applications

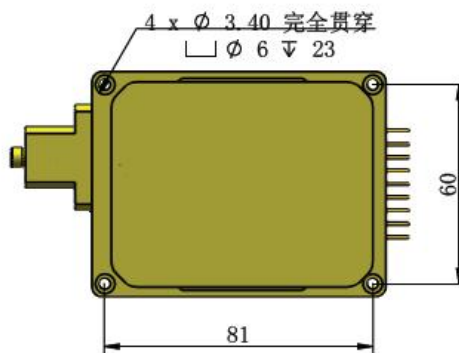
- ◆ Scientific Research
- ◆ Lighting
- ◆ Medical Application



## Outline Dimension (mm) without TEC



| Pin-out Assignment |                          |
|--------------------|--------------------------|
| Pi                 | Function                 |
| 1                  | LD1(+)                   |
| 2                  | LD1(-)                   |
| 3                  | LD2(+)                   |
| 4                  | LD2(-)                   |
| 5                  | LD3(+)                   |
| 6                  | LD3(-)                   |
| 7                  | LD4(+)                   |
| 8                  | LD4(-)                   |
| 9                  | Thermistor               |
| 10                 | Thermistor               |
| 11                 | Indicating light (+2.7v) |
| 12                 | Indicating light (0v)    |
| 13                 | PD(N)                    |
| 14                 | PD(P)                    |

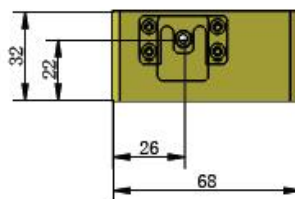
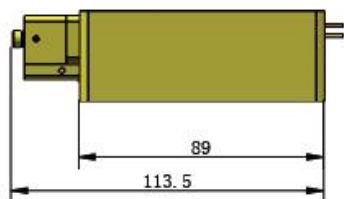


## Typical Device Performance (20°C, without TEC)

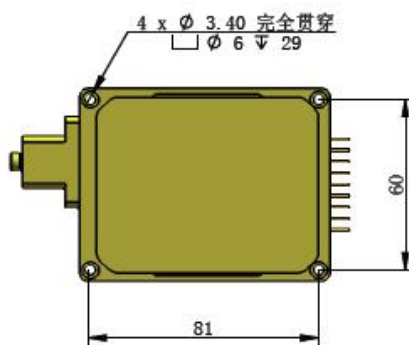
|                                | Min  | Typical      | Max  | Unit |
|--------------------------------|------|--------------|------|------|
| <b>Optical</b>                 |      |              |      |      |
| CW Output Power                | -    | 7            | -    | W    |
| Center Wavelength              | -    | $520 \pm 10$ | -    | nm   |
| Spectral Width (90% of Power)  | -    | 4.0          | -    | nm   |
| <b>Electrical*</b>             |      |              |      |      |
| Threshold Current              | 0.15 | -            | 0.50 | A    |
| Operating Current (Simplex)    | -    | 2            | 2    | A    |
| Operating Voltage (Simplex)    | -    | 10           | -    | V    |
| <b>Indicating light</b>        |      |              |      |      |
| Output Power                   | -    | <3           | -    | mW   |
| Center Wavelength              | -    | $637 \pm 10$ | -    | nm   |
| Operating Current              | -    | <50          | -    | mA   |
| Operating Voltage              | -    | 2.7          | -    | V    |
| <b>Fiber*</b>                  |      |              |      |      |
| Fiber Core Diameter            | -    | 100          | -    | μm   |
| Numerical Aperture             | -    | 0.22         | -    | -    |
| Fiber Length                   | -    | 1-5          | -    | m    |
| Fiber Connector                | -    | FC/SMA905    | -    | -    |
| Fiber Armor                    | -    | Optional     | -    | -    |
| Fiber Minimum Bending Diameter | 75   | -            | -    | mm   |

The power supply mode of the laser has four power supplies.

## Outline Dimension (mm) with TEC



| Pin-out Assignment |                          |
|--------------------|--------------------------|
| Pi                 | Function                 |
| 1                  | LD1(+)                   |
| 2                  | LD1(-)                   |
| 3                  | LD2(+)                   |
| 4                  | LD2(-)                   |
| 5                  | Thermistor               |
| 6                  | Thermistor               |
| 7                  | TEC+                     |
| 8                  | TEC-                     |
| 9                  | Indicating light (+2.7v) |
| 10                 | Indicating light (0v)    |
| 11                 | PD(N)                    |
| 12                 | PD(P)                    |



## Typical Device Performance (20°C, with TEC)

|                                | Min  | Typical   | Max  | Unit |
|--------------------------------|------|-----------|------|------|
| <b>Optical</b>                 |      |           |      |      |
| CW Output Power                | -    | 7         | -    | W    |
| Center Wavelength              | -    | 520±10    | -    | nm   |
| Spectral Width (90% of Power)  | -    | 4.0       | -    | nm   |
| <b>Electrical*</b>             |      |           |      |      |
| Threshold Current              | 0.15 | -         | 0.50 | A    |
| Operating Current (Simplex)    | -    | 2         | 2    | A    |
| Operating Voltage (Simplex)    | -    | 20        | -    | V    |
| TEC Current                    | -    | 12        | -    | A    |
| TEC Voltage                    | -    | 15        | -    | V    |
| <b>Indicating light</b>        |      |           |      |      |
| Output Power                   | -    | <3        | -    | mW   |
| Center Wavelength              | -    | 637±10    | -    | nm   |
| Operating Current              | -    | <50       | -    | mA   |
| Operating Voltage              | -    | 2.7       | -    | V    |
| <b>Fiber*</b>                  |      |           |      |      |
| Fiber Core Diameter            | -    | 100       | -    | μm   |
| Numerical Aperture             | -    | 0.22      | -    | -    |
| Fiber Length                   | -    | 1-5       | -    | m    |
| Fiber Connector                | -    | FC/SMA905 | -    | -    |
| Fiber Armor                    | -    | Optional  | -    | -    |
| Fiber Minimum Bending Diameter | 75   | -         | -    | mm   |

The power supply mode of the laser has two power supplies.

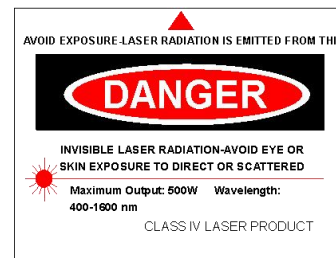
## Absolute Rating

|                                       | Min | Max | Unit |
|---------------------------------------|-----|-----|------|
| Operating Temperature                 | 15  | 35  | °C   |
| Operating Relative Humidity           | -   | 75  | %    |
| Storage Temperature                   | -20 | 80  | °C   |
| Storage Relative Humidity             | -   | 90  | %    |
| Lead Soldering Temperature (10 s max) | -   | 250 | °C   |

\* Measuring specifications.

All figures in this specification are measured by CNI's method and may contain measurement deviations.

The above specifications are for reference purpose only and subjected to change without prior notice.



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**Changchun New Industries Optoelectronics Tech. Co., Ltd** ◆ CONTACT

<http://www.cnilaser.com>

No.888, JinHu Road, High-tech zone, Changchun  
130103, R.P. China

Phone: 0086-431-85603799

Fax: 0086-431-87020258