

## **High Power Fiber Coupled Diode Laser** FCSE08 Series



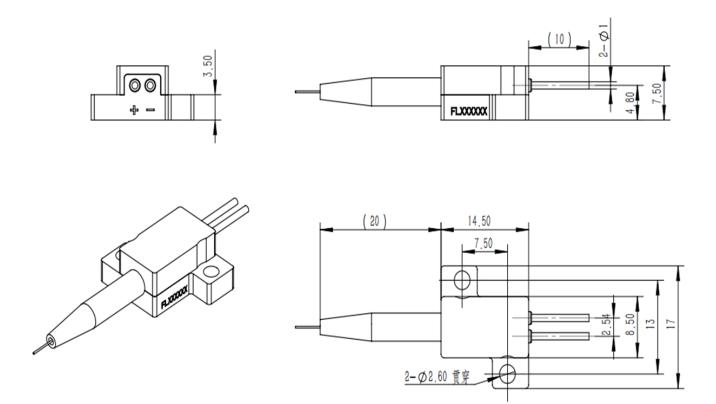
## **Features**

- High brightness
- High power
- Compact housing
- Hermetically sealed housing
- Conduction Cooling

## Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research





Remark: The structure drawing is for reference only. Please feel free to contact us for any special requirements.

All rights reserved. Product specifications and descriptions are subject to change. Product delivered with limited warranty. Please contact our sales representatives for complete details. Address: 56 Zhangba 6th Road, High-Tech Zone, 710077 Xi'an, Shaanxi, P. R. China Focuslight Technologies Inc. Tel: +86 29 8188 9945 | Email: sales@focuslight.com | Website: https://www.focuslight.com



## **Product Specifications**

| Product Code                                 |       | FCE000026        | FCE000028 <sup>2</sup> | FCE000029        | FCE000031 <sup>2</sup> |
|--|-------|------------------|------------------------|------------------|------------------------|
| Part No. <sup>1</sup>                        |       | FL-FCSE08-       | FL-FCSE08-             | FL-FCSE08-       | FL-FCSE08-             |
|  |       | 7-808-200        | 8-915-105              | 8-940-105        | 8-976-105              |
| Optical Data                                 | Unit  | Value            |                        |                  |                        |
| CW-nominal output power                      | W     | 7                | 8                      | 8                | 8                      |
| Centroid wavelength                          | nm    | 808              | 915                    | 940              | 976                    |
| Wavelength tolerance (±)                     | nm    | 3                | 5                      | 5                | 10                     |
| Spectral width (FWHM)                        | nm    | ≤3               | ≤4                     | ≤4               | ≤4                     |
| Wavelength Temp. drift                       | nm/°C | ~ 0.28           | ~ 0.32                 | ~ 0.33           | ~ 0.34                 |
| Feedback Protection (1040nm-1100nm)          | dB    | 1                | 30                     | 30               | 30                     |
| Fiber connection                             |       |                  |                        |                  |                        |
| Fiber included                               |       | Yes              | Yes                    | Yes              | Yes                    |
| Fiber core diameter                          | μm    | 200              | 105                    | 105              | 105                    |
| Numerical aperture                           |       | 0.22             | 0.15                   | 0.15             | 0.15                   |
| Fiber optic connector                        |       | SMA905           | SMA905                 | SMA905           | SMA905                 |
| Fiber length                                 | m     | 1.5±0.1          | 1.5±0.1                | 1.5±0.1          | 1.5±0.1                |
| Operation Conditions                         |       |                  |                        |                  |                        |
| Nominal diode heat sink Temp.                | °C    | 25               | 25                     | 25               | 25                     |
| Diode heat sink operation Temp. <sup>3</sup> | °C    | +20 +30          | +20 +30                | +20 +30          | +20 +30                |
| Minimum heat sink capacity                   | W     | 20               | 25                     | 25               | 25                     |
| Electrical Data                              |       |                  |                        |                  |                        |
| Max. operation current start of life         | А     | 9.2              | 10                     | 10               | 11                     |
| Typical threshold current                    | А     | 1.8              | 0.9                    | 0.8              | 0.8                    |
| Typical operation voltage                    | V     | 2.2              | 2                      | 2                | 2                      |
| Typical slope                                | W/A   | ≥0.9             | ≥0.65                  | ≥0.8             | ≥0.6                   |
| Typical E/O efficiency                       | %     | ≥40              | ≥40                    | ≥40              | ≥43                    |
| Package                                      |       |                  |                        |                  |                        |
| Dimensions                                   | mm³   | 44.5 × 17 × 7.5  | 44.5 × 17 × 7.5        | 44.5 × 17 × 7.5  | 44.5 × 17 × 7.5        |
| Weight basic package                         | g     | 15               | 15                     | 15               | 15                     |
| Storage Temp.                                | °C    | -20 +80          | -20 +80                | -20 +80          | -20 +80                |
| Measurement                                  |       |                  |                        |                  |                        |
| Fiber  |       | AR coated, 200µm | AR coated, 105µm       | AR coated, 105µm | AR coated, 105µm       |
| Diode heat sink Temp.                        | °C    | 25               | 25                     | 25               | 25                     |

<sup>1</sup>Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber core diameter.

<sup>2</sup> Typical customization of products.

<sup>3</sup> Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.

