

## PRODUCT DATA SHEET

Laser Diode (HHL w/fiber package)

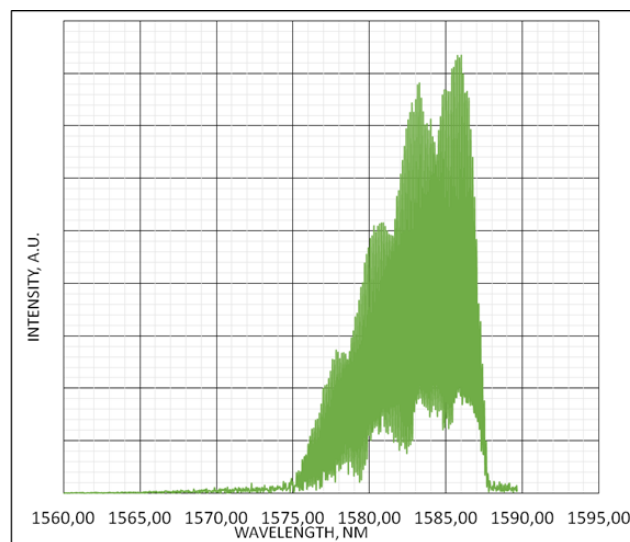
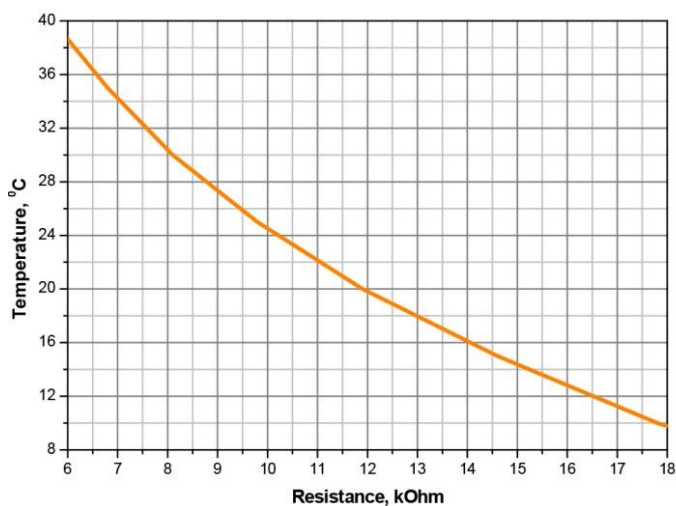
Model FB-M1600-500HF

| Specification                             | Symbol                   | Typical                            | Unit      |
|---|--------------------------|------------------------------------|-----------|
| Laser Emitter (at Top=25 degree)          |                          |                                    |           |
| Peak Wavelength                           | $\lambda_{op}$           | 1600±20                            | nm        |
| CW Optical Output Power                   | $P_{op}$                 | 0.5                                | W         |
| Operation Current                         | $I_{op}$                 | <3.5                               | A         |
| Operation Voltage                         | $U_{ld}$                 | 1.2±0.1                            | V         |
| Threshold Current                         | $I_{th}$                 | < 0.6                              | A         |
| Spectrum Half-Width (FWHM)                | $\Delta\lambda$          | <10                                | nm        |
| Operation Mode                            |                          | CW, QCW, Pulse<br>( $\tau > 5ns$ ) | -         |
| Optical Fiber                             |                          |                                    |           |
| Fiber diameter                            |                          | 200                                | μm        |
| Coating diameter                          |                          | 220                                | μm        |
| Outer diameter                            |                          | 3                                  | mm        |
| Numerical Aperture                        |                          | 0,22                               | -         |
| Fiber Length                              |                          | 1                                  | m         |
| Optical Connector Type                    |                          | FC                                 | -         |
| Photo Diode Monitor                       |                          |                                    |           |
| PD Monitor Current                        |                          | 1-1000                             | μA        |
| PD Reverse Voltage                        |                          | 9                                  | V         |
| TEC                                       |                          |                                    |           |
| Maximum Current                           |                          | 5                                  | A         |
| Maximum Operation Voltage                 |                          | 3,8                                | V         |
| Other parameters                          |                          |                                    |           |
| Thermistor Resistance                     |                          | 10                                 | kilohm    |
| Operation Temperature Range               |                          | -20... +40                         | degree    |
| Wavelength Temperature Coefficient        | $\Delta\lambda/\Delta T$ | 6.5±0.5                            | Å/degree  |
| Operation Current Temperature Coefficient | $\Delta I/\Delta T$      | 15±5                               | mA/degree |
| Guaranteed Life Time                      |                          | 1                                  | year      |

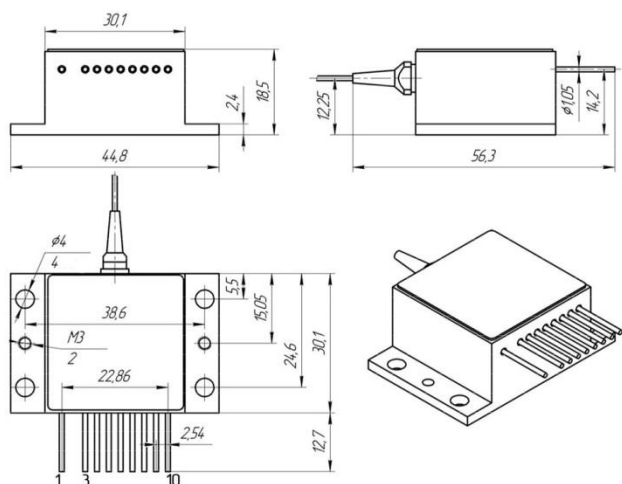


Thermistor resistance diagram

Typical Spectrum



Dimensions and pinouts



- 1-TEC (-)
- 2-
- 3-
- 4- Laser Anode(+)
- 5- Thermistor (2)
- 6- Thermistor (1)
- 7- Laser Cathode (-)
- 8- PD Anode (+)
- 9- PD Cathode (-)
- 10- TEC (+)