

## 1050 nm laser diode

Model 1: 400mW\* / singlemode fiber / 14 pin Butterfly / SMF or PMF

Reference: 1050LD-1-0-0 ( -1: SMF; -2: PMF)

Technology: Fabry-Pérot\*\*

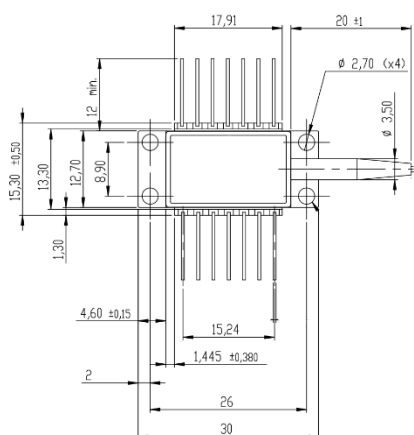
| SPECIFICATIONS                                      | Unit                     | Min  | Typ           | Maximum    |
|-----------------------------------------------------|--------------------------|------|---------------|------------|
| Output Power (CW mode)                              | mW                       |      | 400           |            |
| Center Wavelength***                                | nm                       | 1045 | 1050          | 1055       |
| Spectral Width (FWHM)<br>(if FBG OPTION)            | nm                       |      | 0.2<br>(0.08) | 4<br>(0.1) |
| Threshold Current                                   | mA                       |      | 50            | 100        |
| Operating Current                                   | mA                       |      | 800           | 900        |
| Operating Voltage                                   | V                        |      | 1.8           | 2.0        |
| Wavelength shift w Temperature<br>(with FBG OPTION) | nm/°C                    |      | 0.35<br>(-0)  |            |
| Polarization Extinction Ratio<br>(with PM option)   | dB                       | 15   | 17            |            |
| TEC Current                                         | A                        |      |               | 3          |
| TEC Voltage                                         | V                        |      |               | 4          |
| Internal thermistor (25°C)                          | kΩ                       | 9.9  | 10            | 10.1       |
| Storage temperature                                 | °C                       | -40  |               | 85         |
| Operating temperature                               | °C                       | 0    |               | 70         |
| Pin soldering temperature (max 10 sec)              | °C                       |      |               | 300        |
| Laser diode reverse voltage                         | V                        |      |               | 2          |
| Butterfly pin configuration                         | Type-1                   |      |               |            |
| Fiber type<br>(with PM option)                      | H11060<br>(PM980)        |      |               |            |
| Pigtail termination                                 | FC/APC                   |      |               |            |
| Polarization state (PM version)                     | Aligned to the slow axis |      |               |            |

\*: Special model with more power available (up to 700 mW)

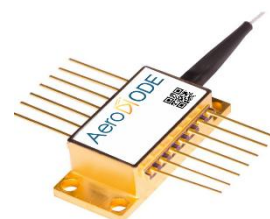
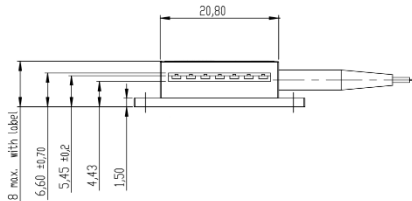
\*\* : See our tutorial: [fiber coupled laser diode](#) – Fabry-Perot laser diodes have a spectrum with multiple peaks – for narrow and stable emission select the FBG option, for single frequency operation, choose the other (DFB) Model.

\*\*\*: Possibility to target a special wavelength

Form factor & laser diode pin configuration (standard 14-pin Butterfly Type-1) :



Dimensions are in mm.



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