**Description**

The FPL2000 series laser is a high power Fabry-Perot Laser diode (FPL) based on state-of-the-art, quantum-well epitaxial layer growth and reliable ridge waveguide structure.

The FPL2000S is housed in a standard, 14-pin butterfly package with an integrated thermoelectric cooler and thermistor. The output fiber is newly developed 2000 nm single-mode fiber with a larger optical core and significantly lower bend-loss sensitivity compared to SMF-28 fiber. SMF-28 is available as an option for applications requiring compatibility.

**Specifications**

CW; $T_{CHIP} = 25 \, ^\circ C$, $T_{CASE} = 0 - 70 \, ^\circ C$

<table>
<thead>
<tr>
<th>Specification</th>
<th>Symbol</th>
<th>Min</th>
<th>Typical</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Wavelength</td>
<td>$\lambda_C$</td>
<td>1980 nm</td>
<td>2000 nm</td>
<td>2020 nm</td>
</tr>
<tr>
<td>Operating Current</td>
<td>$I_{OP}$</td>
<td>-</td>
<td>400 mA</td>
<td>500 mA</td>
</tr>
<tr>
<td>Optical Power @ $I_{OP}$</td>
<td>$P_{OUT}$</td>
<td>10 mW</td>
<td>15 mW</td>
<td>-</td>
</tr>
<tr>
<td>Spectral Bandwidth (rms)</td>
<td>$\Delta\lambda$</td>
<td>-</td>
<td>15 nm</td>
<td>-</td>
</tr>
<tr>
<td>Threshold Current</td>
<td>$I_{TH}$</td>
<td>-</td>
<td>55 mA</td>
<td>80 mA</td>
</tr>
<tr>
<td>Slope Efficiency</td>
<td>$\Delta P/\Delta I$</td>
<td>-</td>
<td>0.05 W/A</td>
<td>-</td>
</tr>
<tr>
<td>Forward Voltage @ $I_{OP}$</td>
<td>$V_F$</td>
<td>-</td>
<td>2.0 V</td>
<td>2.5 V</td>
</tr>
</tbody>
</table>

**TEC Operation** (Typical / Max @ $T_{CASE} = 25 \, ^\circ C / 70 \, ^\circ C$)

- TEC Current | $I_{TEC}$ | - | 0.25 A | 1.5 A |
- TEC Voltage | $V_{TEC}$ | - | 0.35 V | 3.5 V |
- Thermistor Resistance | $R_{TH}$ | - | 10 kΩ | - |

**Performance Plots**

- Optical Spectrum
- Output Power and Forward Voltage
PIN IDENTIFICATION

1. TEC +
2. Thermistor
3. NC
4. NC
5. Thermistor
6. NC
7. NC
8. NC
9. NC
10. Dev Anode
11. Dev Cathode
12. NC
13. Case
14. TEC –

All Dimensions in mm