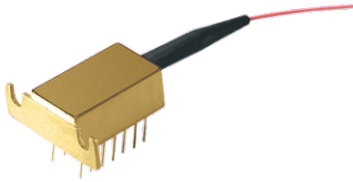


FPL-980-14DL



Single mode Fabry-Perot laser diode module designed for optical measurement and communication. The laser is packaged in 14pinDIL package with monitor photodiode and thermo-electric cooler (TEC). Module is pigtailed with 0.5-0.9 m of single mode or polarization maintaining (optional) fiber and connectorized by FC/PC connector.

Optical and electrical characteristics:

| Parameter | Symbol | Test condition | Min. | Typ. | Max. | Unit |
|-----------------------------|-------------------|--------------------------------------|------|------|------|------------|
| Optical Power | P_f | CW | 30 | 40 | | mW |
| Pulsed Optical Power | P_{fp} | Pulse, $\tau=10\mu s$, $D=1\%$ | | 80 | | mW |
| Threshold Current | I_{th} | | 20 | | 50 | mA |
| Forward Current | I_f | P_f | | 150 | 200 | mA |
| Pulsed Forward Current | I_{fp} | P_{fp} , $\tau=10\mu s$, $D=1\%$ | | 300 | | mA |
| Forward Voltage | V_f | P_f | | | 2.5 | V |
| Center Wavelength | λ_c | P_f | 970 | 980 | 990 | nm |
| Spectral Width | $\Delta\lambda_c$ | P_f | | 1 | 3 | nm |
| Monitor Current | I_m | P_f | 20 | | 500 | μA |
| PD Dark Current | I_d | $V_{rd}=5V$ | | | 0.1 | μA |
| TEC Current | I_t | I_t | | | 1.4 | A |
| TEC Voltage | V_t | $TC=70^\circ C$ | | | 2.7 | V |
| Thermal Resistance | R_0 | $T=25^\circ C$, $B=3900\pm 100K$ | 9.5 | 10 | 10.5 | k Ω |
| Extinction Ratio (PM fiber) | X_p | P_f | 20 | | | dB |

Absolute maximum ratings:

| Parameter | Symbol | Rating | Unit |
|------------------------------------|----------|--------|------|
| Forward Current | I_f | 300 | mA |
| Reverse Voltage | V_r | 1.8 | V |
| Reverse Voltage | V_{rd} | 7 | V |
| Minimum Operation Case Temperature | T_{ol} | -40 | °C |
| Maximum Operation Case Temperature | T_{oh} | 70 | °C |
| Minimum Storage Temperature | T_{sl} | -40 | °C |
| Maximum Storage Temperature | T_{sh} | 70 | °C |
| TEC Current | I_t | 1.5 | A |

Packaging:

| 14pinDIL: | | | |
|-----------|----------------|----|------------------|
| № | Parameter | № | Parameter |
| 1 | Cooler anode + | 8 | PD anode - |
| 2 | NC | 9 | LD cathode - |
| 3 | NC | 10 | NC |
| 4 | NC | 11 | Thermistor |
| 5 | LD anode + | 12 | Thermistor |
| 6 | NC | 13 | NC |
| 7 | PD cathode + | 14 | Cooler cathode - |

