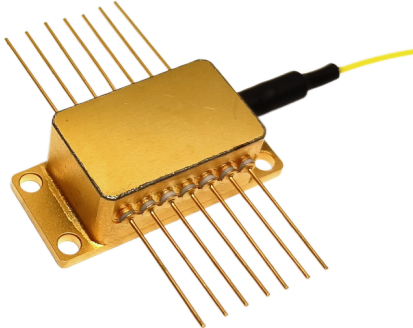


TLD-660-14BF



Stable narrow band laser diode module with a wavelength tuning possibility in 0.5-1 nm range. The laser is packaged in Butterfly 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/APC connector.

Optical and electrical characteristics:

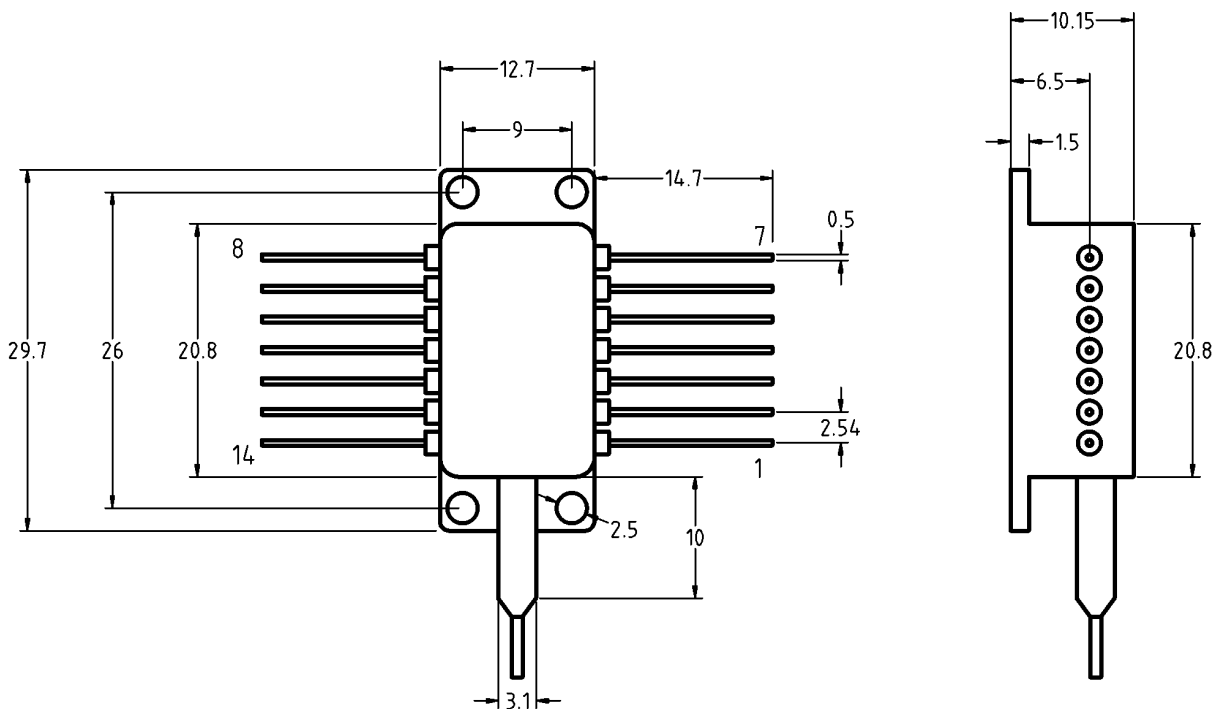
| Parameter | Symbol | Test condition | Min. | Typ. | Max. | Unit |
|--|-----------------------------|------------------------|------|-------|------|---------|
| Optical Power | P_f | CW | 25 | 30 | | mW |
| Threshold Current | I_{th} | | 50 | 60 | 80 | mA |
| Forward Current | I_f | P_f | | 120 | 150 | mA |
| Forward Voltage | V_f | P_f | | 2.5 | 3 | V |
| Center Wavelength | λ_c | P_f | 658 | 659 | 660 | nm |
| PZT Tuning Range | Δf_p | | 0.5 | | | nm |
| Spectral Width | $\Delta \lambda_c$ | P_f | | | 1 | MHz |
| PZT Tuning Voltage | V_p | | -10 | | 150 | V |
| Side Mode Suppression Ratio | | SMSR | 30 | | | dB |
| Single-Frequency Continuous Tuning Range | Δf | | 1 | | | GHz |
| Current Tuning | $\Delta \lambda / \Delta I$ | | | 0.001 | | nm/mA |
| Temperature Tuning | $\Delta \lambda / \Delta T$ | | | 0.08 | | nm/°C |
| Monitor Current | I_m | P_f | 20 | | 500 | μ A |
| PD Dark Current | I_d | $V_{rd}=5V$ | | | 0.1 | μ A |
| TEC Current | I_t | I_t | | | 1.4 | A |
| TEC Voltage | V_t | TC=70°C | | | 2.7 | V |
| Thermal Resistance | R_0 | T=25°C, B=3900±100K | 9.5 | 10 | 10.5 | kΩ |
| Extinction Ratio (PM fiber) | X_p | P_f | 20 | | | dB |

Absolute maximum ratings:

| Parameter | Symbol | Rating | Unit |
|------------------------------------|----------|--------|------|
| Forward Current | I_f | 170 | mA |
| Reverse Voltage | V_r | 1.8 | V |
| PD 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:

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



Emission spectrum:

