



LDI H-DFB(CWDM)-λ-10P

10mW DFB LASER DIODE MODULES

These laser diode modules are high stability DFB laser-diode modules with single-mode fiber pigtails. These modules are optimal 10mW light sources for high-speed optical communication systems, measuring instruments and CWDM.

Wavelength: 1310nm, 1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570nm, 1590nm, 1610nm

Absolute maximum ratings

| | |
|-------------------------------------|-------------|
| LD forward current, I_{f1} | 120mA |
| LD reverse voltage, V_{r1} | 2V |
| PD reverse voltage, V_{rd} | 30V |
| Operating case temperature, T_c : | |
| LDI DFB (CWDM)-λ-10P-W(H) | -20 ÷ +50°C |
| LDI DFB (CWDM)-λ-10P-T | -20 ÷ +40°C |
| Storage temperature, T_{stg} | -30 ÷ +60°C |

Electrical / optical characteristics (SM, T=25°C)

| Parameter | | Min. | Typ. | Max. | Unit | Test conditions |
|--------------------------------|-----------------|---------------|-------------|---------------|-------|---|
| Wavelength | λ | $\lambda - 3$ | λ^* | $\lambda + 3$ | nm | CW, P=10mW |
| Threshold current | I_{th} | | 8 | 12 | mA | CW |
| Operating current | I_{op} | | 80 | 100 | mA | CW, P=10mW |
| Operating voltage | V_{op} | | 1.1 | 1.5 | V | CW, P=10mW |
| Slope efficiency | η | 0.1 | 0.14 | 0.2 | mW/mA | CW, P=10mW |
| Spectral width | $\Delta\lambda$ | | 0.15 | 0.25 | nm | CW, P=10mW, -20dB |
| Rise and fall times* | t_r, t_f | | 0.08 | 0.12 | nc | P=10mW, 10-90% |
| Monitoring output current (PD) | I_m | 0.5 | 1 | 2 | mA | CW, P=10mW, $V_{rd}=5V$ |
| Capacitance (PD) | C_t | | 10 | 20 | pF | $V_{rd}=5V, f=1MHz$ |
| Tracking error* | E_r^{**} | | 0.6 | 0.8 | dB | CW, P=10mW, $I_m=const, T_c=-20\div+50^\circ C$ |

* λ , HM: 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

** LDI DFB H-(CWDM)-λ-10P-W(H)

*** $E_r = \text{MAX} |10\log (P_f / P_{f25^\circ c})|$

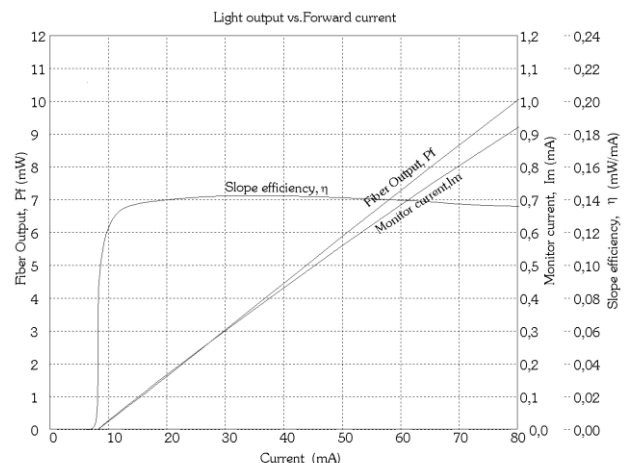
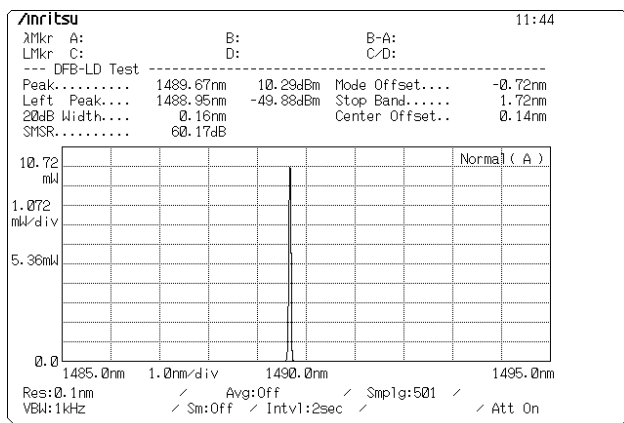
Ordering information

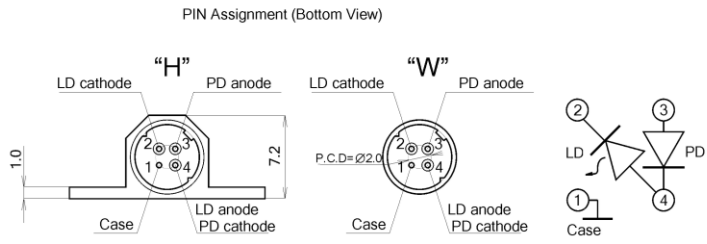
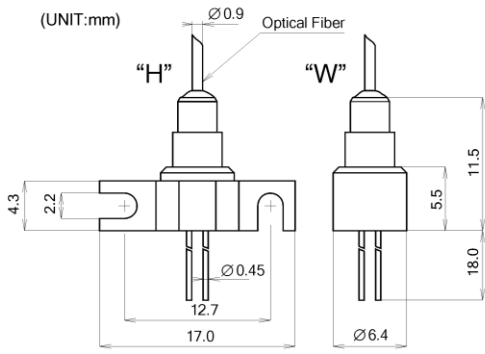
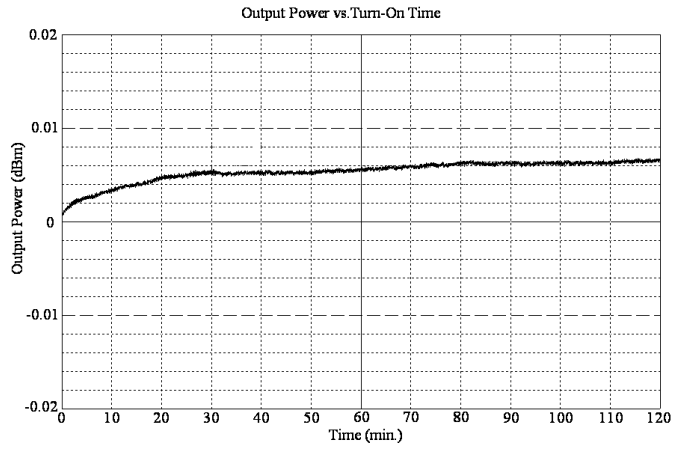
LDI H-DFB(CWDM)-X-10P-X-SM-X

Connector type: FC/UPC, FC/APC, N – without connector

Case type: W, H, T

Wavelength, nm: 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

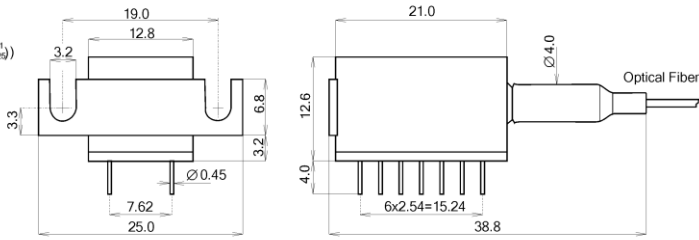




PACKAGE DIMENSIONS (UNIT:mm)

Thermistor technical data
 $R_t = R_{25} \text{EXP}(b (T^{-1} - T_{25}^{-1}))$
 $R_{25} = 10\text{k}\Omega$
 $b = 3450$
 $T = t + 273$
 $T_{25} = 298$
 Power rating 51mW

Cooler technical data
 $I_{\text{max}} = 600\text{mA}$
 $Q_{\text{max}} = 1100\text{mW}$
 $V_{\text{max}} = 3.5\text{V}$



PIN Assignment (Bottom View)

