



LDI H-FP-1310-30P

1310nm 30mW FP LASER DIODE MODULES

These laser diode modules are high stability FP laser-diode modules with single-mode fiber pigtails. These modules are optimal 1310nm 30mW light sources for high-speed optical communication systems and measuring instruments.

Absolute maximum ratings

LD forward current, I_f	150mA
LD reverse voltage, V_{rl}	2V
PD reverse voltage, V_{rd}	30V
Operating case temperature, T_c	-20 ÷ +50°C
Storage temperature, T_{stg}	-30 ÷ +60°C

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

Parameter		Min.	Typ.	Max.	Unit	Test conditions
Wavelength	λ	1290	1310	1330	nm	CW, P=30mW
Threshold current	I_{th}	4	6	15	mA	CW
Operating current	I_{op}		120	140	mA	CW, P=30mW
Operating voltage	V_{op}		1.2	1.5	V	CW, P=30mW
Slope efficiency	η	0.2	0.25	0.28	mW/mA	CW, P=30mW
Spectral width	$\Delta\lambda$		8	10	nm	CW, P=30mW, FWHM
Rise and fall times*	t_r, t_f		0.3	0.5	nc	P=30mW, 10-90%
Monitoring output current (PD)	I_m	1	2	3	mA	CW, P=30mW, $V_{rd}=5V$
Capacitance (PD)	C_t		10	20	pF	$V_{rd}=5V, f=1MHz$
Tracking error*	E_r^{**}		0.6	0.8	dB	CW, P=30mW, $I_m=const, T_c=-20\div+50^\circ C$

* LDI FP-1310-30P-W(H)

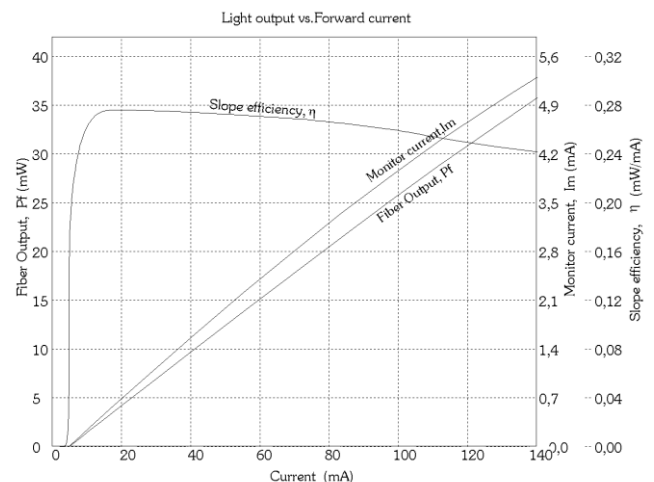
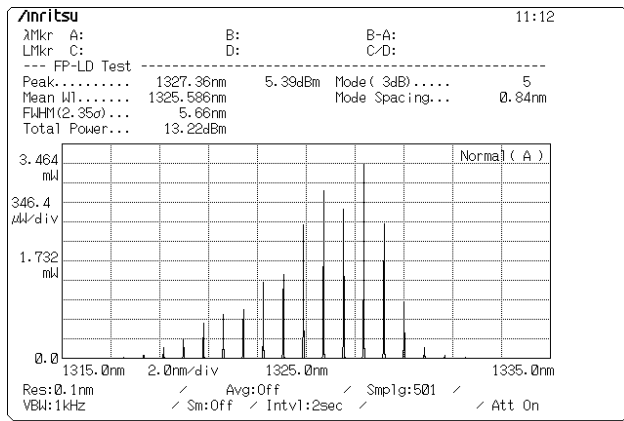
** $E_r = \text{MAX} |10\log(P_f / P_{f, 25^\circ C})|$

Ordering information

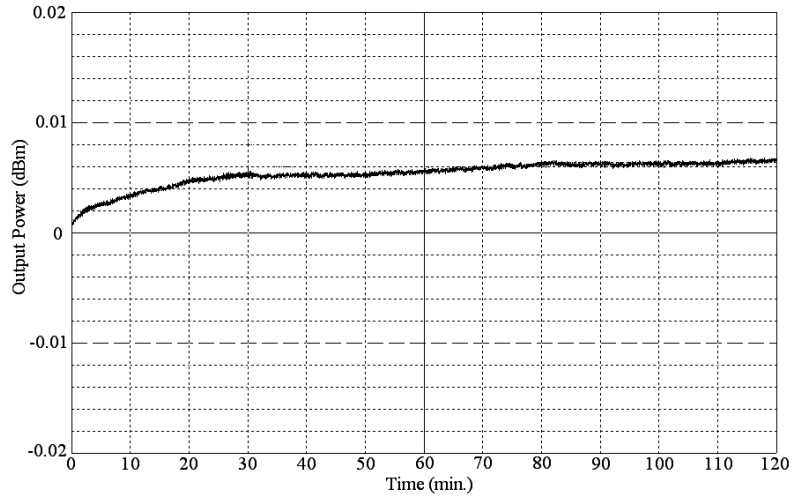
LDI H-FP-1310-30P-X-SM-X

Case type: **BH, T2**

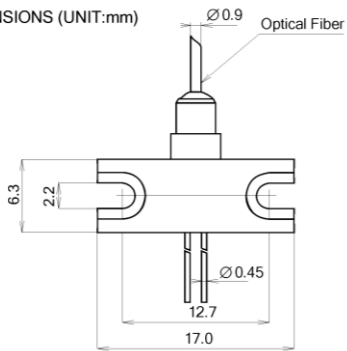
Connector type: **FC/UPC, FC/APC, N** – without connector



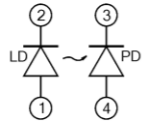
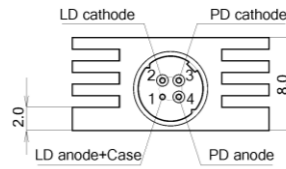
Output Power vs. Turn-On Time



PACKAGE DIMENSIONS (UNIT:mm)

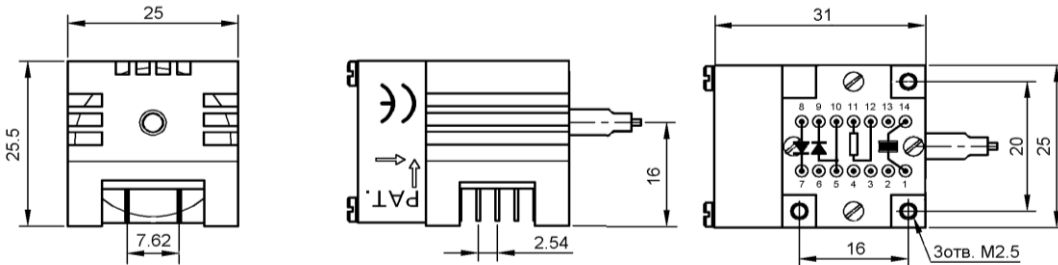


PIN Assignment (Bottom View)



BH

PACKAGE DIMENSIONS (UNIT:mm)



- 1.Cooler anode
- 2.
- 3.
- 4.
- 5.Laser anode
- 6.
- 7.Photodiode cathode
- 8.Photodiode anode
- 9.Laser cathode
- 10.Laser anode
- 11.Thermistor
- 12.Thermistor
- 13.
- 14.Cooler cathode

T2

Thermistor: $R_t = 10000 \exp\left(\frac{1}{T+273} - \frac{1}{298}\right)$ Cooler: $I_{max} = 600\text{mA}$ $V_{max} = 3.5\text{V}$ Fan: DC12V=0.5W