



LDI H-V-850-4P

850nm 4mW VCSEL LASER DIODE MODULES

These laser diode modules are high stability VCSEL laser-diode modules with multi-mode fiber pigtailed. These modules are 850nm 4mW light sources for high-speed optical communication systems and measuring instruments.

Absolute maximum ratings

LD forward current, I_{f1}	30mA
LD reverse voltage, V_{r1}	2V
PD reverse voltage, V_{rd}	30V
Operating case temperature, T_c : LDI H-V-850-4P-W(H) LDI H-V-850-4P-T	0 ÷ +50°C -20 ÷ +40°C
Storage temperature, T_{stg}	-30 ÷ +60°C

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

Parameter		Min.	Typ.	Max.	Unit	Test conditions
Wavelength	λ	830	850	860	nm	CW, P=4mW
Threshold current	I_{th}		2	3.5	mA	CW
Operating current	I_{op}		15	20	mA	CW, P=4mW
Operating voltage	V_{op}	1.6	1.8	2.1	V	CW, P=4mW
Slope efficiency	η	0.25	0.3	0.4	mW/mA	CW, P=4mW
Spectral width	$\Delta\lambda$		1.8	2	nm	CW, P=4mW, FWHM
Monitoring output current (PD)	I_m	0.1	0.2	0.5	mA	CW, P=4mW, $V_{rd}=5V$
Tracking error*	E_r^{**}		0.6	0.8	dB	CW, P=4mW, $I_m=const$, $T_c=0 \div +50^\circ C$

* LDI V-850-4P-W(H)

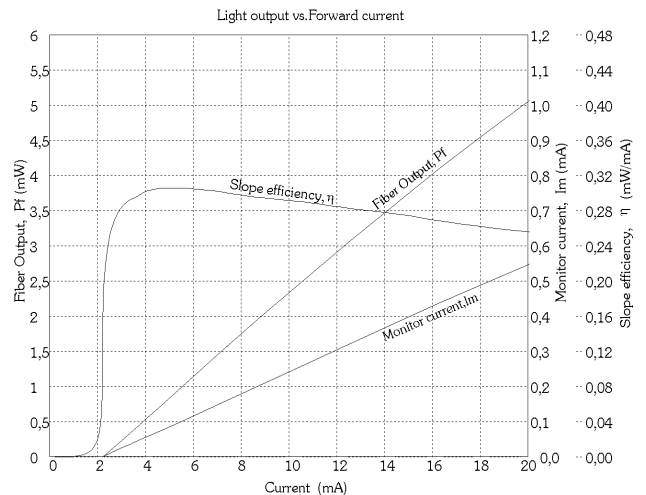
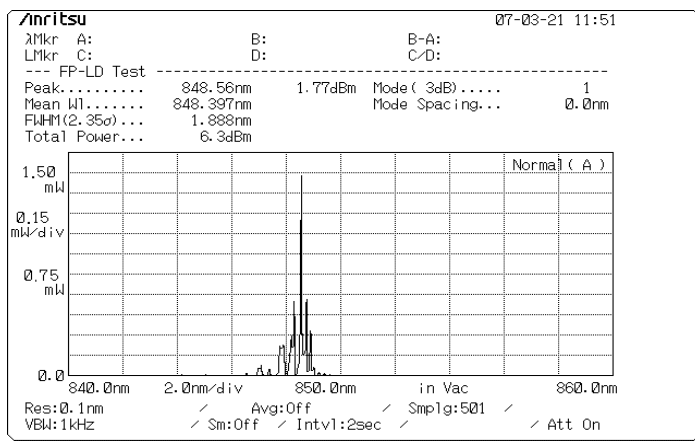
** $E_r = \text{MAX} |10 \log (P_f / P_{f 25^\circ C})|$

Ordering information

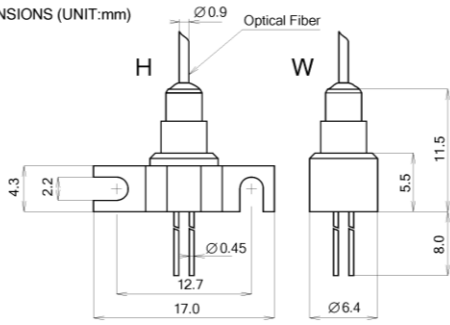
LDI H-V-850-4P-X-MM(50)-X

Case type: W, H, T

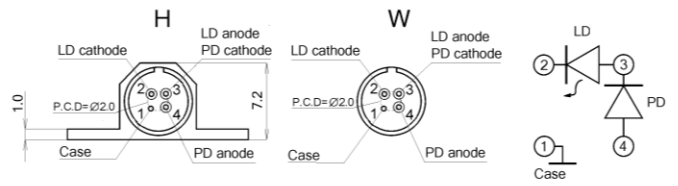
Connector type: FC/PC, N – without connector



PACKAGE DIMENSIONS (UNIT:mm)



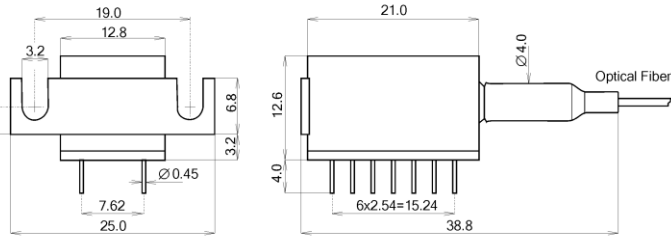
PIN Assignment (Bottom View)



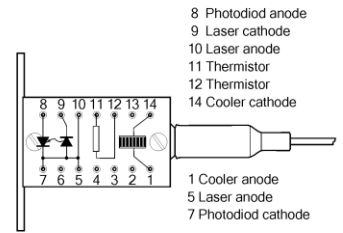
PACKAGE DIMENSIONS (UNIT:mm)

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



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