

# LDI H-FP-780-10P

## 780nm 10mW FP LASER DIODE MODULES

These laser diode modules are high stability FP laser-diode modules with single-mode fiber pigtails. These modules are 780nm 10mW light sources for optical systems and measuring instruments.

### Absolute maximum ratings

LD forward current, $I_{fl}$	70mA
LD reverse voltage, $V_{rl}$	2V
PD reverse voltage, $V_{rd}$	30V
Operating case temperature, $T_c$ :	
LDI-FP-780-10P-W(H)	-20 ÷ +50°C
LDI-FP-780-10P-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	$\lambda$	770	785	795	nm	CW, P=10mW
Threshold current	$I_{th}$		14	20	mA	CW
Operating current	$I_{op}$		45	55	mA	CW, P=10mW
Operating voltage	$V_{op}$		1.9	2.5	V	CW, P=10mW
Slope efficiency	$\eta$	0.3	0.36	0.5	mW/mA	CW, P=10mW
Spectral width	$\Delta\lambda$		1	2	nm	CW, P=10mW, FWHM
Monitoring output current (PD)	$I_m$	1.0	1.5	2.0	mA	CW, P=10mW, $V_{rd}=5V$
Tracking error*	$E_r^{**}$		0.6	0.8	dB	CW, P=10mW, $I_m=const$ , $T_c=-20\div+50^\circ C$

\* LDI FP-780-10P-W(H)

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

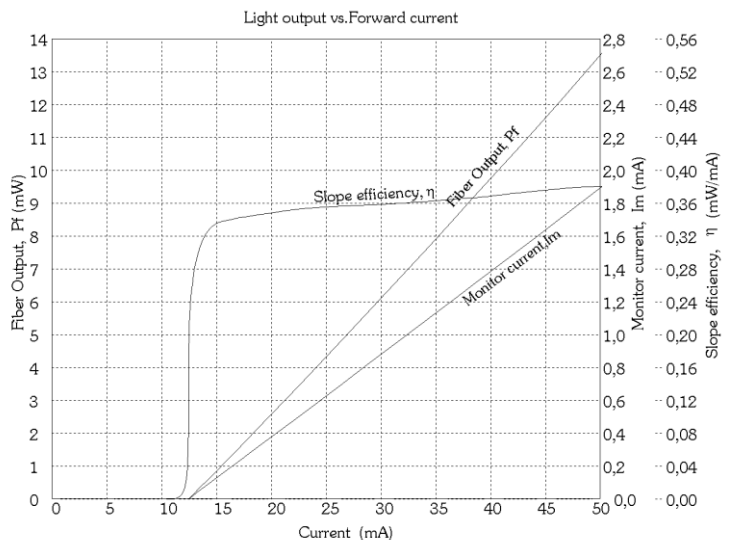
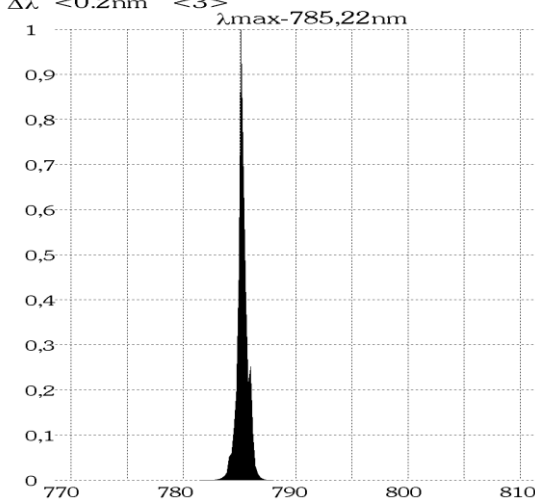
### Ordering information

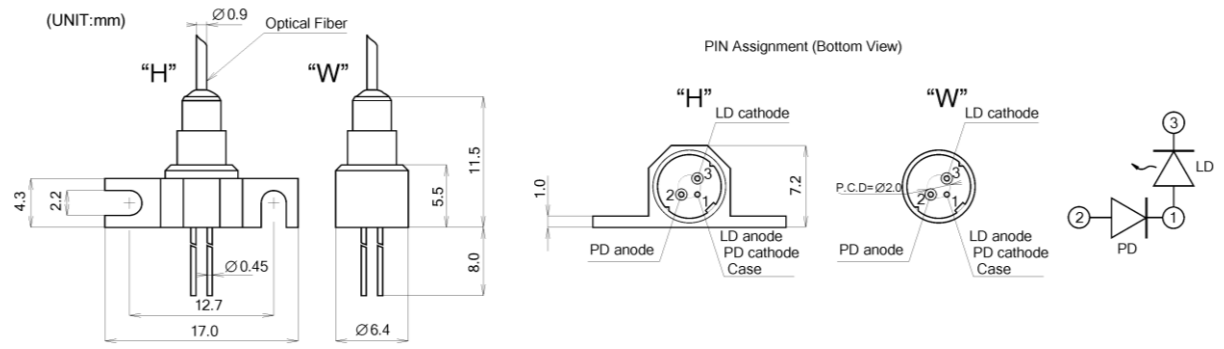
## LDI H-FP-780-10P-X-SM-X

Case type: W, H, T

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

$\Sigma\lambda=785,35\text{nm} <1>$        $P_f=10\text{mW}$   
 $\lambda_c=785,33\text{nm} <2>$        $I_{op}=40,65\text{mA}$   
 $\Delta\lambda <0.2\text{nm} <3>$

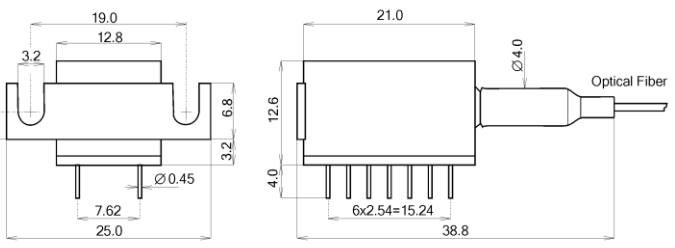




PACKAGE DIMENSIONS (UNIT:mm)

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

