

N-13/15-001-PX-SFCHI



Features

- Single fiber bi-directional operation
- Laser diode with multi-quantum-well structure
- Low threshold current
- Un-cooled operation from 0°C to +85°C
- Hermetically sealed active component
- Design for fiber optic networks

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Fiber Output Power	P_f	2.5	mW
LD Reverse Voltage	V_{RLD}	2	V
Operating Temperature	T_{opr}	0~+85	°C
Storage Temperature	T_{stg}	-40~+85	°C

(All optical data refer to a coupled 9/125m SM)

Transmitter Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Optical Output Power	P_f	1.0	-	-	mW	CW, $I_{th}+25mA$, kink free
Peak Wavelength	λ	1290	1310	1330	nm	CW, $P_f=P_f(\text{Min})$
Spectrum Width (RMS)	$\Delta\lambda$	-	-	3	nm	CW, $P_f=P_f(\text{Min})$
Threshold Current	I_{th}	-	10	15	mA	CW
Forward Voltage	V_F	-	1.2	1.5	V	CW, $P_f=P_f(\text{Min})$
Rise/Fall Time	t_r/t_f	-	-	0.3	ns	$I_{bias}=I_{th}$, 10~90%
Monitor Current	I_m	100	-	-	μA	CW, $P_f=P_f(\text{Min})$, $V_{RLD}=2V$
Dark Current	I_{DARK}	-	-	0.1	μA	$V_{RLD}=5V$
Capacitance	C_t	-	6	15	pF	$V_{RLD}=5V$
Tracking error	TE	-1.5	-	1.5	dB	APC, 0~+85°C

(All optical data refer to a coupled 9/125m SM)

Transmitter Characteristics

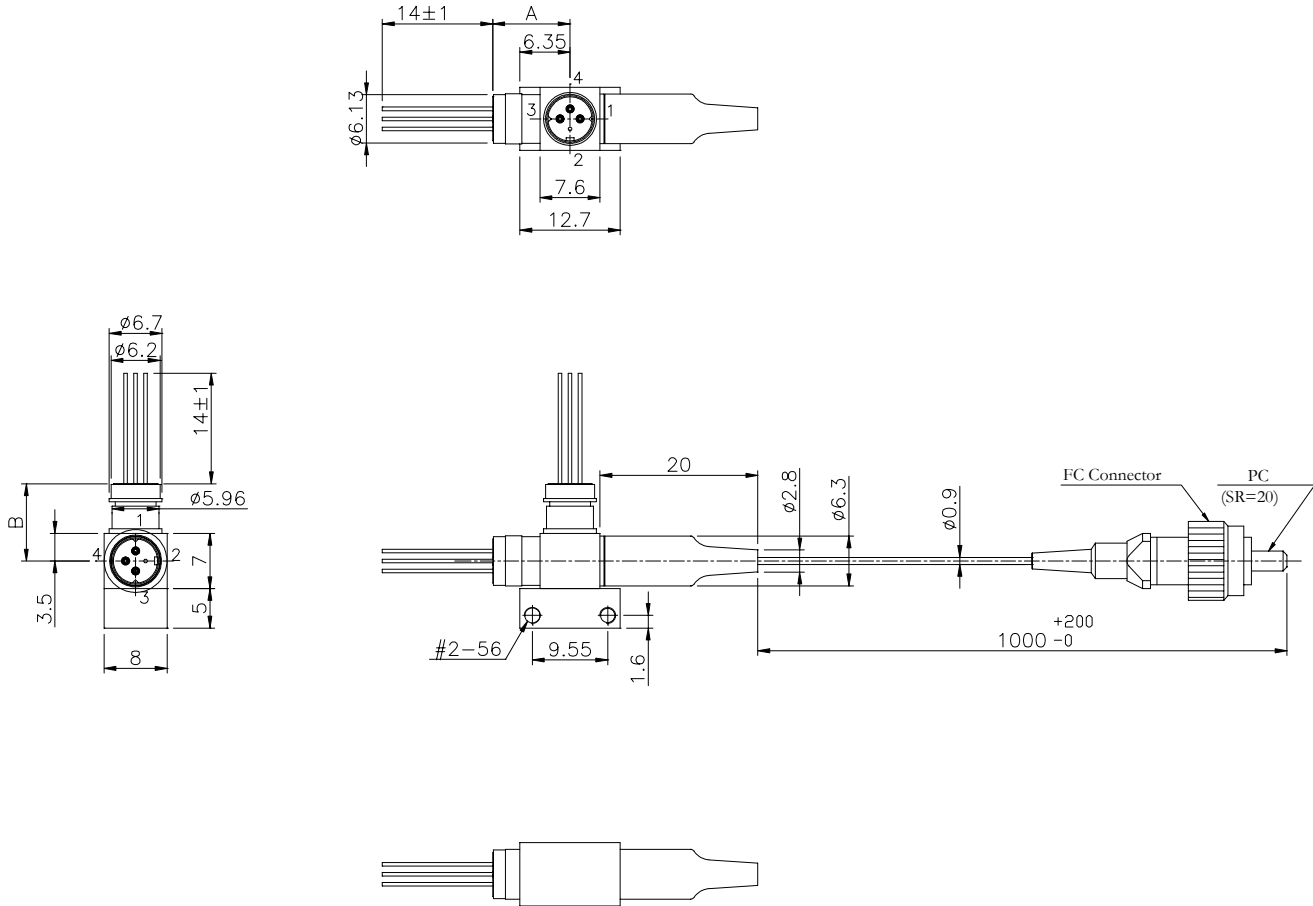
Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Optical Output Power	P_f	1.0	-	-	mW	CW, $I_{th}+25mA$, kink free
Peak Wavelength	λ	1530	1550	1570	nm	CW, $P_f=P_f(\text{Min})$
Spectrum Width (RMS)	$\Delta\lambda$	-	-	3	nm	CW, $P_f=P_f(\text{Min})$
Threshold Current	I_{th}	-	10	15	mA	CW
Forward Voltage	V_F	-	1.2	1.5	V	CW, $P_f=P_f(\text{Min})$
Rise/Fall Time	t_r/t_f	-	-	0.3	ns	$I_{bias}=I_{th}$, 10~90%
Monitor Current	I_m	100	-	-	μA	CW, $P_f=P_f(\text{Min})$, $V_{RLD}=2V$
Dark Current	I_{DARK}	-	-	0.1	μA	$V_{RLD}=5V$
Capacitance	C_t	-	6	15	pF	$V_{RLD}=5V$, $f=1MHz$
Tracking error	TE	-1.5	-	1.5	dB	APC, 0~+85°C

Note:

1. Pin assignment can be customized.
2. Specifications subject to change without

Outline Drawing

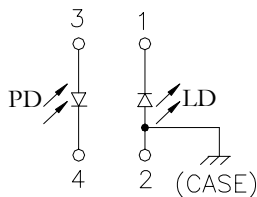
Units in mm.



Pin Assignment

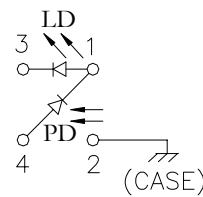
A Type

- Pin 1 : Laser Cathode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Monitor Diode Anode
- Pin 4 : Monitor Diode Cathode



D Type

- Pin 1 : Laser Anode and Monitor Diode Cathode
- Pin 2 : Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Anode



Ordering Information

N-13/15-001-PX-SFCHI

1310nm Transmitter
1550nm Transmitter

Package
P=Pigtail

Connector
Fiber Output Power
"I" = Isolator

Pin Assignment
"- " =A Type
D =D Type

Warnings:

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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