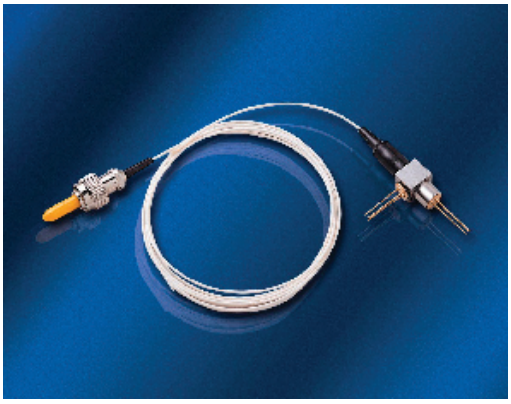
1550nm Emitting , 1310nm Receiving (PIN), Bi-directional Diplexer Optical Module

C-15/13-001- PX-SXXX/XXX



Features
- Single fiber bi-directional operation
- Laser diode with multi-quantum- well structure
- Low threshold current
- Fast pulse response
- Integrated WDM coupler
- Un-cooled operation from -40 to +85ºC
- Hermetically sealed active component
- Single mode fiber pigtailed package with optional FC/ST/SC/MU connector
- Design for fiber-optic networks application

Absolute Maximum Rating (Tc=25ºC)

Parameter	Symbol	Value	Unit
Fiber Output Power L/M/H	P_f	0.6(L)/1(M)/2(H)	mW
LD Reverse Voltage	V_{RLD}	2	V
PD Reverse Voltage	V_{RLD}	15	V
PD Forward Current	I_{FPD}	2	mA
Operating Temperature	T_{opr}	-40 to +85	ºC
Storage Temperature	T_{stg}	-40 to +85	ºC

Optical and Electrical Characteristics(Tc=25ºC)

Parameter	Symbol	Min	Typical	Max	Unit	Test Condition
Laser Diode						
Optical Output Power	L M H	0.2 0.5 1	0.4 0.75 1.6	0.5 1.0 -	mW	CW, I_{th}+ 25 mA , kink free
Peak Wavelength	λ	1520	1550	1580	nm	CW, P_f=P_f(Min)
Spectral Width (RMS)	Δλ	-	-	3	nm	CW, P_f=P_f(Min)
Threshold Current	I_{th}	-	12	15	mA	CW
Forward Voltage	V_F	-	1.2	1.6	V	CW, P_f=P_f(Min)
Rise/Fall Time	t_r /t_f	-	-	0.3	ns	I_{bias}=I_{th} ,10% to 90%
Monitor Diode						
Monitor Current	I_m	100	-	-	μA	CW, P_f=P_f(Min),V_{RPD}=2V
Dark Current	I_{DARK}	-	-	0.1	μA	V_{RPD}=5V
Capacitance	C_t	-	6	15	pF	V_{RPD}=5V, f=1MHz
Detector						
Dark Current	I_{DARK}	-	0.5	0.8	nA	V_R=2V
Capacitance	C	-	0.7	0.9	pF	V_R=2V
Rise/Fall Time	t_r /t_f	-	-	0.3	ns	V_R=2V, 10% to 90%
Responsivity	R	0.65	-	-	A/w	V_R=2V, λ =1100 to 1430 nm
Module						
Tracking Error	$ΔP_f/P_f$	-	-	±1.5	dB	APC, -40 to +85ºC
Optical Crosstalk	CRT		< -45		dB	

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

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Ordering Information

C-15/13-001-PX-SXXX/XXX

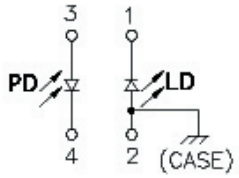
- 1550nm Transmitter / 1310nm Receiver
- Package: P=Pigtail
- Pin Assignment: "-" = A Type; D = D Type
- Fiber Output Power: L/M/H
- Connector: FC/ST/SC/MU/LC/-
- -: PC Fiber; APC: APC Fiber

Pin Assignment

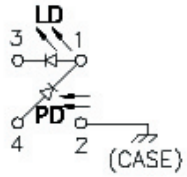
Pin Assignment

LD Pin Assignment

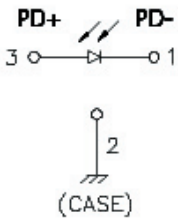
A Type
Pin 1 : Laser Cathode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Monitor Diode Anode
Pin 4 : Monitor Diode Cathode



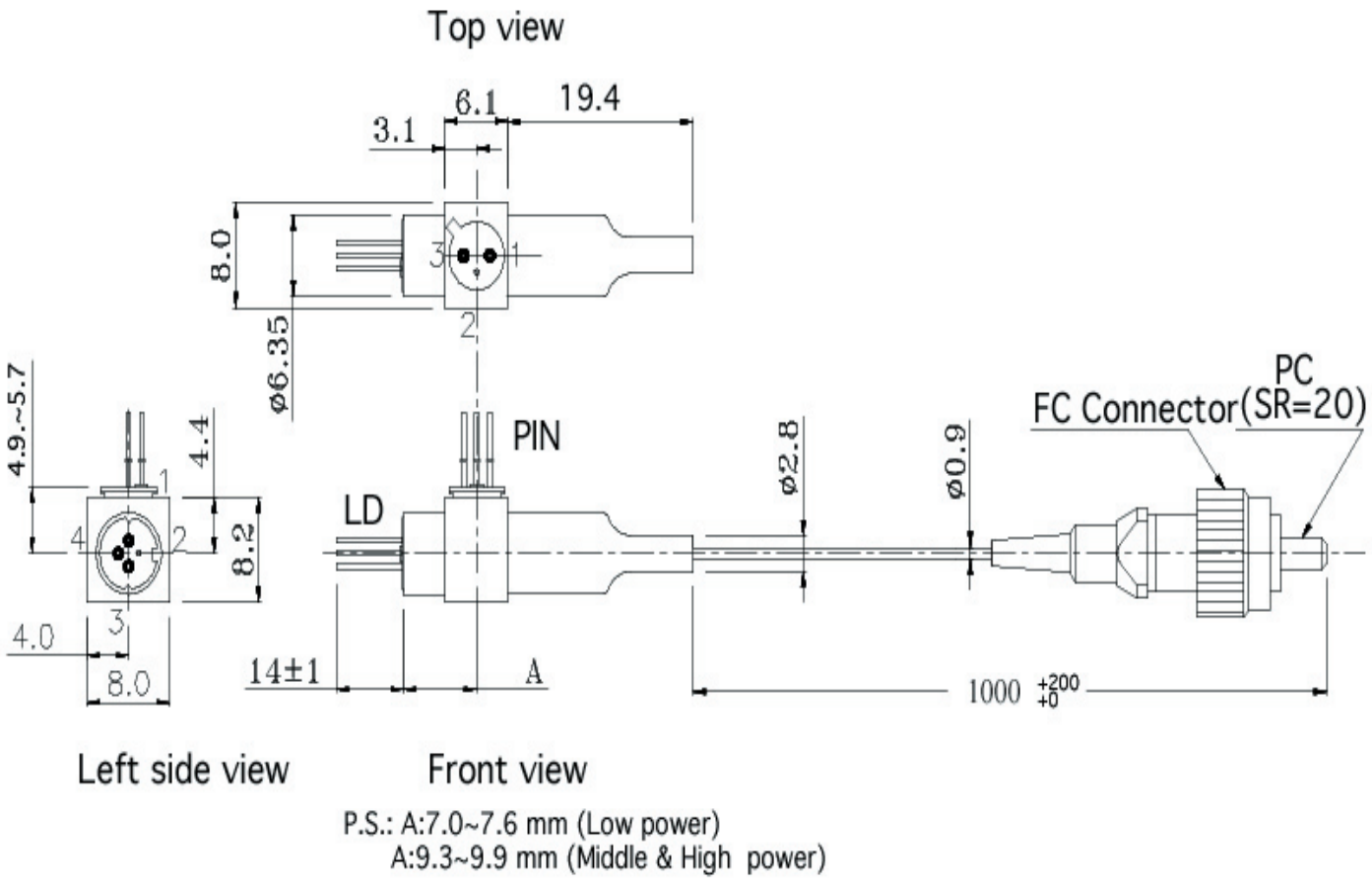
D Type
Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode



PIN Pin Assignment



Outline Dimensions



P.S.: A:7.0~7.6 mm (Low power)
A:9.3~9.9 mm (Middle & High power)

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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