

GFLP-5xxxxxx

1550nm MQW-FP Laser Diode with pigtail For 1.25Gbps and 2.5Gbps application



Features

- ◆ Coaxial Package
- ◆ InGaAsP/InP MQW-FP laser Diode
- ◆ Low threshold, high slope efficiency and high output power LD
- ◆ Operating case temperature: -40°C to +85°C
- ◆ Single-mode fiber pigtailed with SC, FC, ST or LC connector
- ◆ Optional with Isolator

Applications

- ◆ High Speed Optical Transmission System
- ◆ Test Equipments

Ordering information (Standard version ^{*Note1})

Part No.	λ (nm)	Package series	Pin Type	Isolator	Connector	Data Rate
GFLP-5110AFA1G	1550	A	LD-Pin-1	Single Stage	FC/APC	1.25Gbps
GFLP-5205BSA2	1550	B	LD-Pin-2	N=None	SC/APC	2.5Gbps
GFLP-5105CT1	1550	C	LD-Pin-1	N=None	ST/PC	1.25Gbps
GFLP-5205DFA1G	1550	D	LD-Pin-1	N=None	FC/APC	2.5Gbps
GFLP-5110ESA2	1550	E	LD-Pin-2	N=None	SC/APC	1.25Gbps

*Note1: For more ordering information, please refer the nomenclature and contact EOPTOLINK sales.

Absolute maximum ratings ^{*Note2}

Parameter	Symbol	Ratings	Unit
Storage temperature	Tstg	-40~+100	°C
Operating case temperature	Top	-40~+85	°C
Forward current (LD)	IfL	150	mA
Reverse voltage (LD)	VrL	2	V
Reverse voltage (PD)	VrP	15	V
Reverse current (PD)	IrP	2	mA
Soldering temperature (<10s)	Stemp	260	°C

*Note2: Exceeding any one of these values may destroy the device immediately.

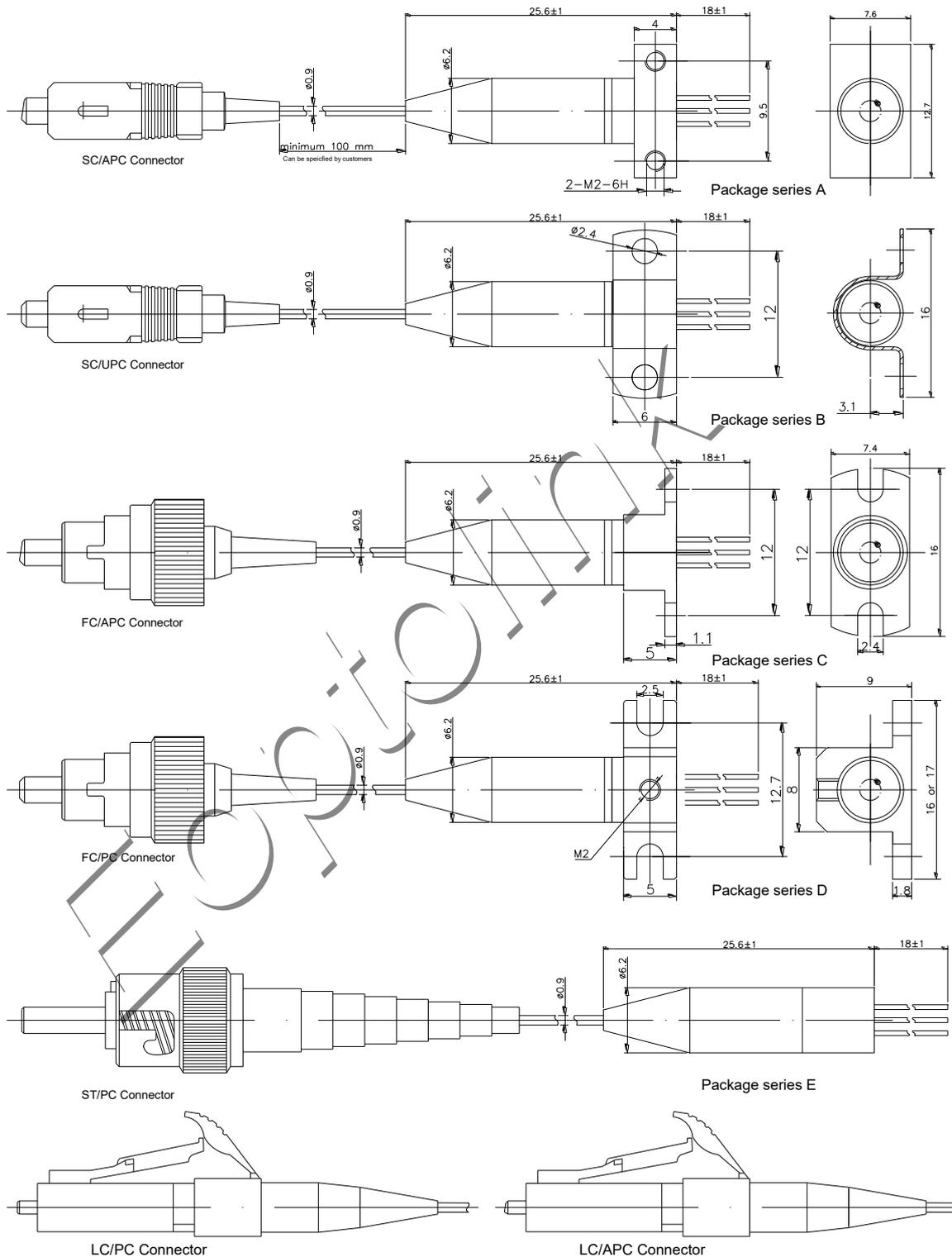
Electrical and optical characteristics

(Po=3mW, SMF, Tc=+25°C, unless otherwise noted.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Threshold current	Ith	CW	—	8	15	mA
Fiber Coupling Power	Pf	CW, If=Ith+20mA ^{*Note3}	0.05	0.3	1.8	mW
Operating voltage	Vf	CW, Tc=-40~+85°C	—	1.2	1.6	V
Slope Efficiency ^{*Note3}	Se	CW, Average(Ith to Ith+20mA)	—	—	0.9	mW/mA
Peak wavelength	λ_p	CW	1520	1550	1580	nm
		CW, Tc=-40~+85°C	1490		1585	
Spectral width	$\Delta\lambda$	CW, 20dB down,	—	1.5	3	nm
Rise time	tr	Ib=Ith, 20-80%, Tc=-40~+85°C	—		0.05	ns
Fall time	tf	Ib=Ith, 80-20%, Tc=-40~+85°C	—	0.15	0.05	ns
Tracking error	ΔPf	I _m hold(@Pf=0.16mW(25°C)) CW, Tc=-40~+85°C	-1.5	—	1.5	dB
Monitor current	I _m	CW, VrP=5V, Tc=-40~+85°C	80	—	1000	uA
Monitor dark current	I _d	VrP=5V	—	—	10	nA
Monitor capacitance	C	VrP=5V, f=1MHz	—	—	20	pF
Connector repeatability	—		-1	—	1	dB
Optical Isolation	—	Single Stage	30	—	—	dB

*Note3: Please confirm Pin direction with us before purchase LD power above 1mW.

Pigtail Package dimension *Note4. 5. 6. 7.



*Note4: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

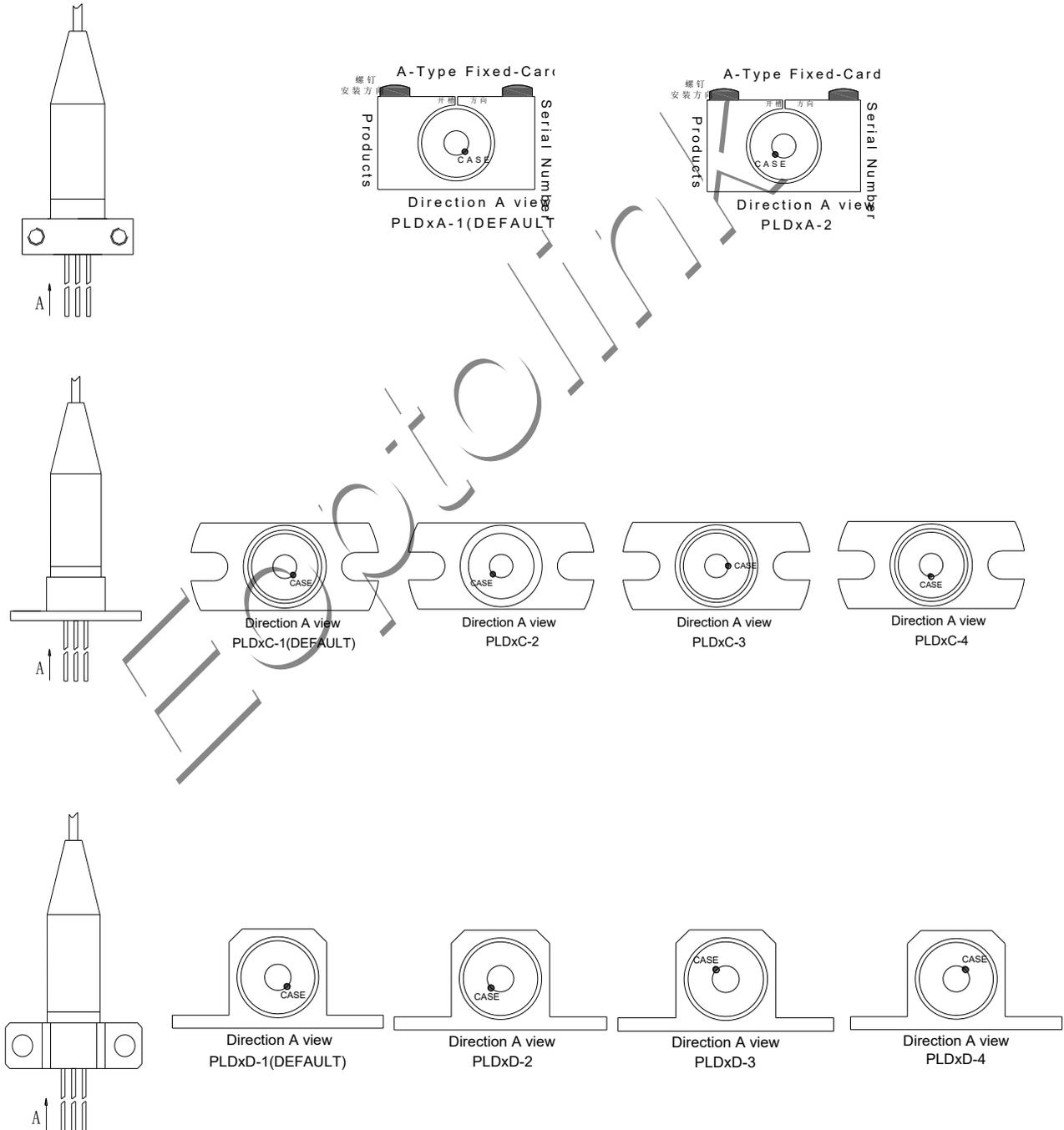
*Note4: For the package series B, No need to fix with glue

*Note5: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

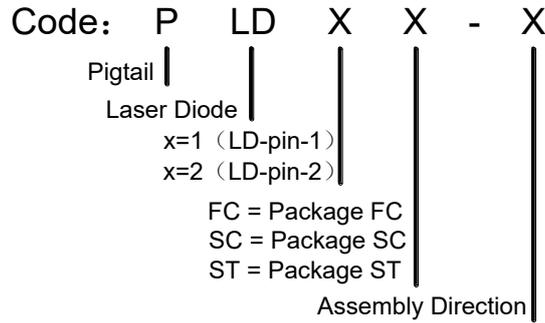
Fixed card type	A(mm)	B(mm)	C(mm)
D0	16	11	7.6
D-S	17	12.7	9

*Note6: For the package series B, the fix card is fixed by customer self. For the detailed information of fix card of A, C, D package series, please refers the following graphs.

The direction of fix card



Nomenclature of assembly direction ^{*Note7, 8}



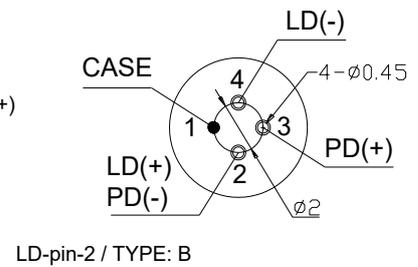
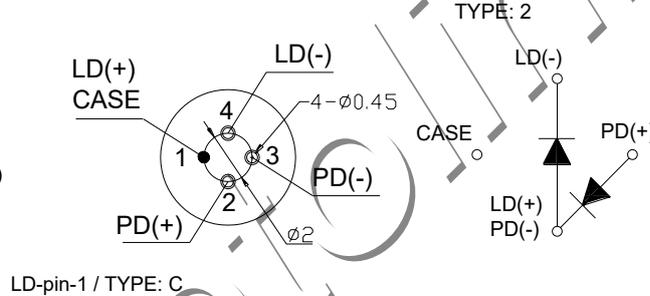
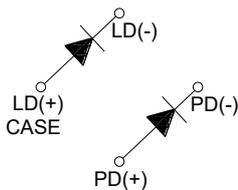
*Note7: Please designate the code of assembly direction.

*Note8: Please Specify the assembly direction code based on the Pin assignment.

For example: PLD1A-1、PLD2C-2、PLD1D-1.

Pin Assignment

TYPE: 1



Nomenclature



NO	Parameter	Detailed Description				
A	Wavelength	5=1550				
B	Data rate	1=1.25Gb/s		2=2.5Gb/s		
C	Power	05=0.2-0.99mW		10=1-1.99mW		
D	Package series	A	B	C	D	E
E	Connector	F=FC/PC		S=SC/PC		T=ST/PC
		FA=FC/APC		SA=SC/APC		Blank=None
F	Pin Type	1=LD-pin-1			2=LD-pin-2	
G	Isolator	Blank=None			G= Single Stage	
H	Fiber Type	Blank=SM			M=MM	

Precaution

- (1) The modules should be handled in the same manner as ordinary semiconductor devices to prevent the electro-static damages. For safe keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.

Revision History

Version	Initiated	Reviewed	Approved	Revision History	Release Date
Vb-1	Yinchun.Zhao	Kelly.Cao			2011-6-10
Vb-2	Yinchun.Zhao	James.liu	Vincent.yu	1、 Update the direction of fix card. 2、 Update Nomenclature of assembly direction	2023.8.29

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