

GFLR-3xxxx

1310nm MQW-FP Laser Diode Receptacle Module



Features

- ◆ Coaxial Package
- ◆ InGaAsP/InP MQW-FP laser Diode
- ◆ Low threshold, high slope efficiency and high output power LD
- ◆ Maximum Soldering Temperature/Time: 260°C/10s
- ◆ Operating Case temperature: -40°C to +85°C
- ◆ RoHS Compliant Products Available

Applications

- ◆ Optical Transmitter of Data Signal
- ◆ Optical Transmitter of Analog Signal
- ◆ Test Equipments

General

GFLR-3xxxx Series are 1310nm InGaAsP/InP MQW-FP laser diode modules designed for fiber communication systems. These modules are transmitter optical sub-assembly with low threshold current and high performance at high temperature, which are ideally suitable for short reach applications, data rates from 155Mbps to 2.5Gbps.

Ordering information (Standard version ^{*Note1})

Part No.	Pin Type	Connector	Data rate
GFLR-3100S2	LD-Pin-2	FC	1.25Gbps
GFLR-3204K1	LD-Pin-1	ST	2.5Gbps

*Note1: For more ordering information, please refer the nomenclature and contact EPOTOLINK 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)	IFD	150	mA
Reverse voltage (LD)	VrL	2	V
Reverse voltage (PD)	VrP	15	V
Reverse current (PD)	IrP	10	mA
Soldering temperature (<10s)	Stemp	260	°C

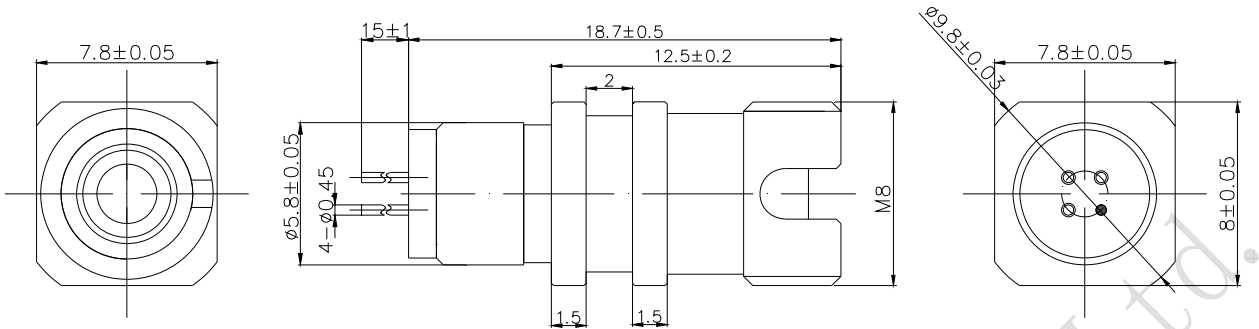
*Note2: Exceeding any one of these values may destroy the device immediately.

Electrical and optical characteristics

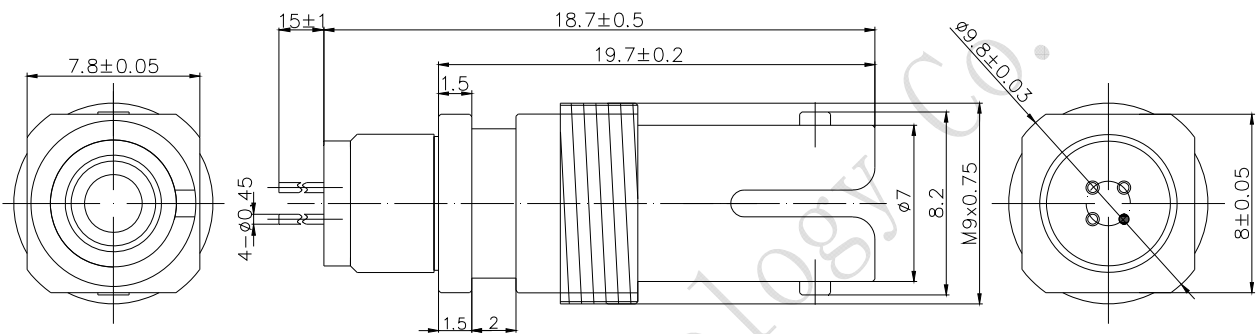
(Po=0.5mW, SMF, Tc=+25°C, unless otherwise noted.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Threshold current	Ith	CW	—	8	15	mA
Output Power (After coupling)	Po	CW, If=Ith+20mA	0.2		0.7	mW
Operating voltage	Vf	CW, Tc=0~+85°C	—	1.2	1.6	V
Slope Efficiency	Se	CW, Average(Ith to Ith+20mA)	0.025	—	—	mW/mA
Peak wavelength	λc	CW	1290	1310	1330	nm
		CW, Tc=0~+85°C	1265		1355	
Spectral width	Δλ	CW, RMS	—	1.5	3	nm
Rise time	tr	Po=1mW, 20-80%, Tc=0~+85°C	—	0.15	0.2	ns
Fall time	tf	Po=1mW, 20-80%, Tc=0~+85°C	—	0.15	0.2	ns
Tracking error	ΔPf	Im hold, CW, Tc=-40~+85°C	-1.5	—	1.5	dB
Monitor current	Im	CW, VrP=5V, Tc=0~+85°C	100	—	1000	uA
Monitor dark current	Id	VrP=5V	—	—	0.1	uA
Monitor capacitance	C	VrP=5V, f=1MHz	—	10	20	pF
Connector repeatability	—		-1	—	1	dB

Package dimension

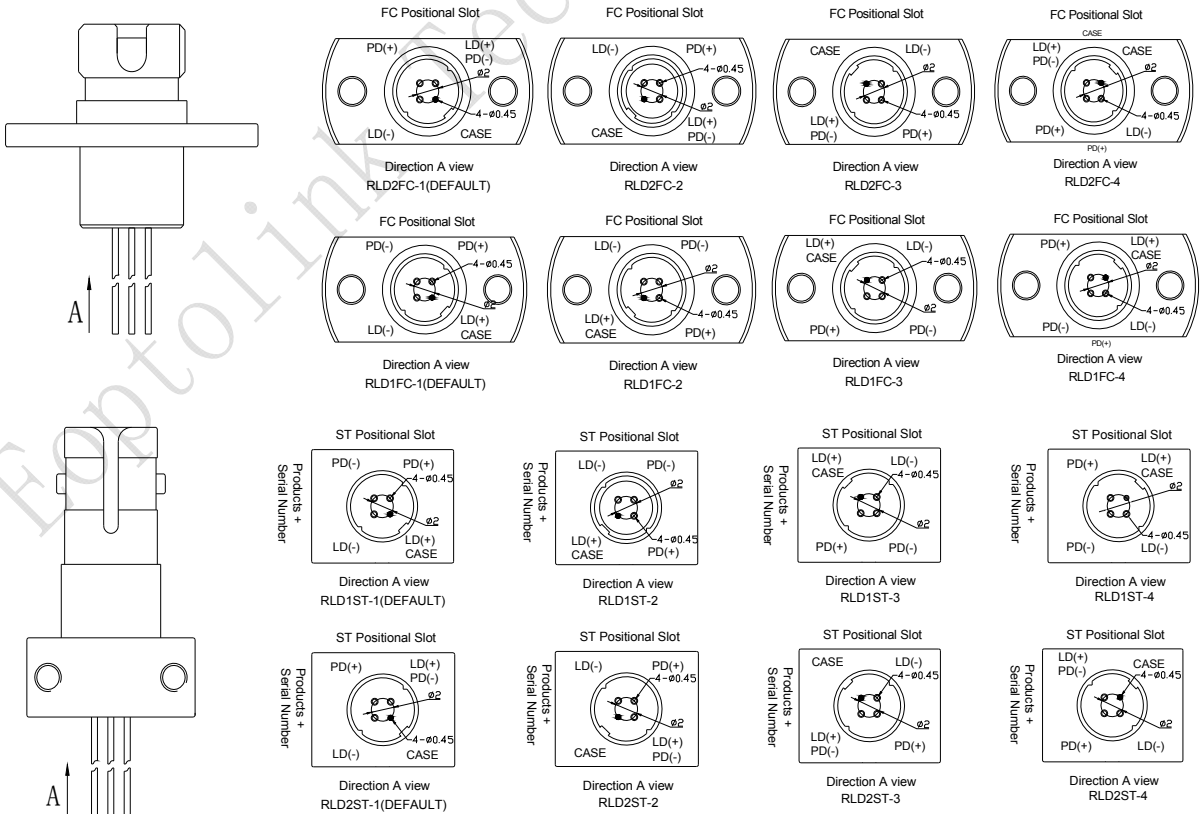


S= Plastic Shell FC

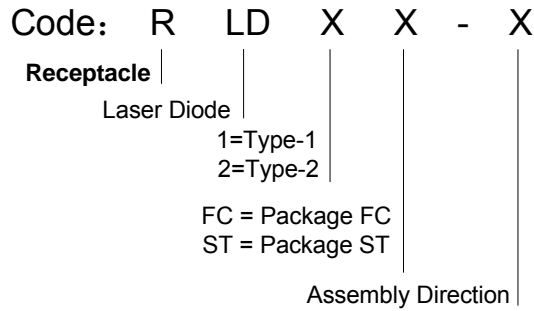


K= Plastic Shell ST

The direction of fix card



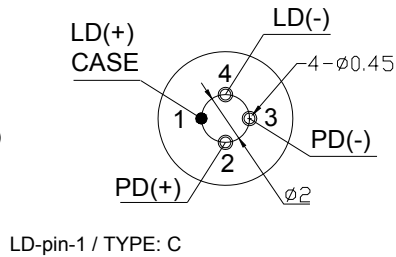
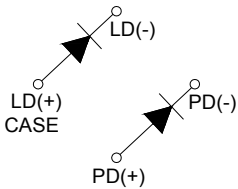
Nomenclature of assembly direction ^{*Note3}



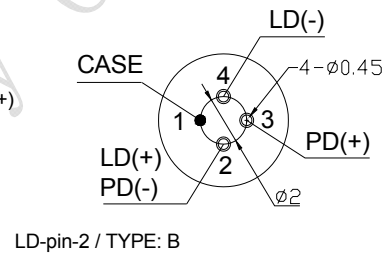
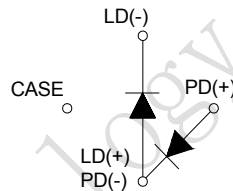
*Note3: Please designate the code of assembly direction

Pin Assignment

TYPE: 1



TYPE: 2



Nomenclature

G F L R — 3 □ □ □ □ □
A B C D E

Order	Parameter	Detailed Description	
A	Data rate	1=1.25Gbps	2=2.5Gbps
B	Power	00=0.08-0.249mW	04=0.25-0.7mW
C	Package series	K=Plastics ST	S=Plastics FC
D	Pin Type	1=LD-pin-1	2=LD-pin-2
E	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.

Obtaining Document

You can visit our website: <http://www.eoptolink.com>

Or contact Eoptolink Technology Inc., Ltd. listed at the end of the documentation to get the latest documentation.

Revision History

Version	Initiated	Reviewed	Approved	Revision history	Release date
Va-1	Yinchun.zhao	James.liu	Vincent.yu		2019-12-2

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Contact:

Add: IOT Industrial Park, Southwest Airport Economic Development Zone, Shuangliu County, Chengdu, Sichuan, China.

Tel: +86-28-67087999 ext.8081

Fax: +86-28-67087979

Postal: 610213

E-mail: sales@eoptolink.com

<http://www.eoptolink.com>