

GPDP-2022XXXG

Long Wavelength PIN Photodiode Module for Wide Frequency-range CATV Receiver (pigtail Module)



Features

- ◆ Low Return Loss
- ◆ Low Dark Current
- ◆ Quick Pulse Response
- ◆ Suitable for CATV Application
- ◆ High Responsivity at 1310nm and 1550nm, High Linearity
- ◆ High Reliability and Long Operation Life
- ◆ RoHS Compliant Products Available

◆ Applications

- ◆ Analog Optical Receiver
- ◆ Test Equipments

General

GPDP-2020BFAMG InGaAs PIN Photodiode series are high quality analog photodetectors designed for AM CATV receiver applications.

A photodiode is mounted into a low capacitance coaxial package integrated with a single mode fiber Pigtail.

Ordering Information (Standard version ^{*Note1})

Part No.	Wavelength (nm)	Explore Area (um)	Bandwidth (GHz)	Package	Pin Type
GPDP-2022BFAMG	1100~1650	75	3.2	B	M
GPDP-2022DSATG	1100~1650	75	3.2	D	T
GPDP-2022BSATG	1100~1650	75	3.2	B	T

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

Absolute maximum ratings

Parameter	Symbol	Min	Max	Unit
Storage Temperature	T_{ST}	-40	100	□
Operating Temperature	T_{OP}	-40	85	□
Reverse Voltage	VR		20	V
Forward Current	I_{FD}		10	mA
Saturation Input Power	P_{IN}		10	dBm
Soldering Temperature / Time	T_s/t		260/10	°C/s

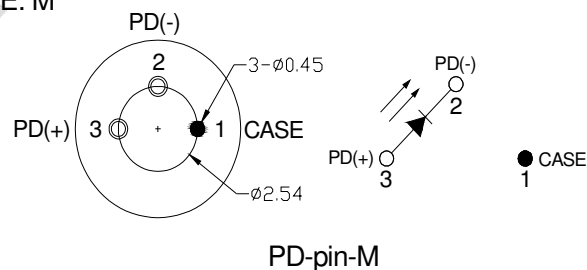
Electrical and optical characteristics

($V_r=5V$, $T_c=+25^\circ C$, unless otherwise noted.)

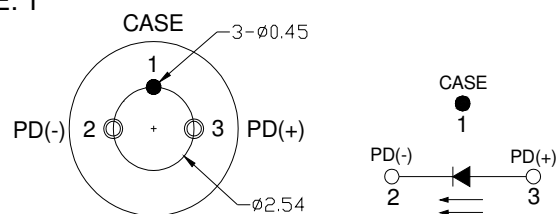
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Detection Wavelength Range	λ	-	1100		1650	nm
Active Diameter	DA	-		75		μm
Responsibility	R	VR=-5V@1310nm	0.80	0.85	-	A/W
		VR=-5V@1550nm	0.85	0.90	-	A/W
Return Loss	RL		-	-55	-	dB
Dark Current	I_d	VR = 5V	-	0.1	1	nA
Capacitance	C_p	VR = 5V	-	0.6	0.7	pF
Bandwidth	BW	VR=5V	2.7	3.2		GHz
IMD2	CSO	$\lambda=1310nm$ (Note2)	-	-75	-70	dBc
IMD3	CTB		-	-85	-80	dBc

Pin Assignment

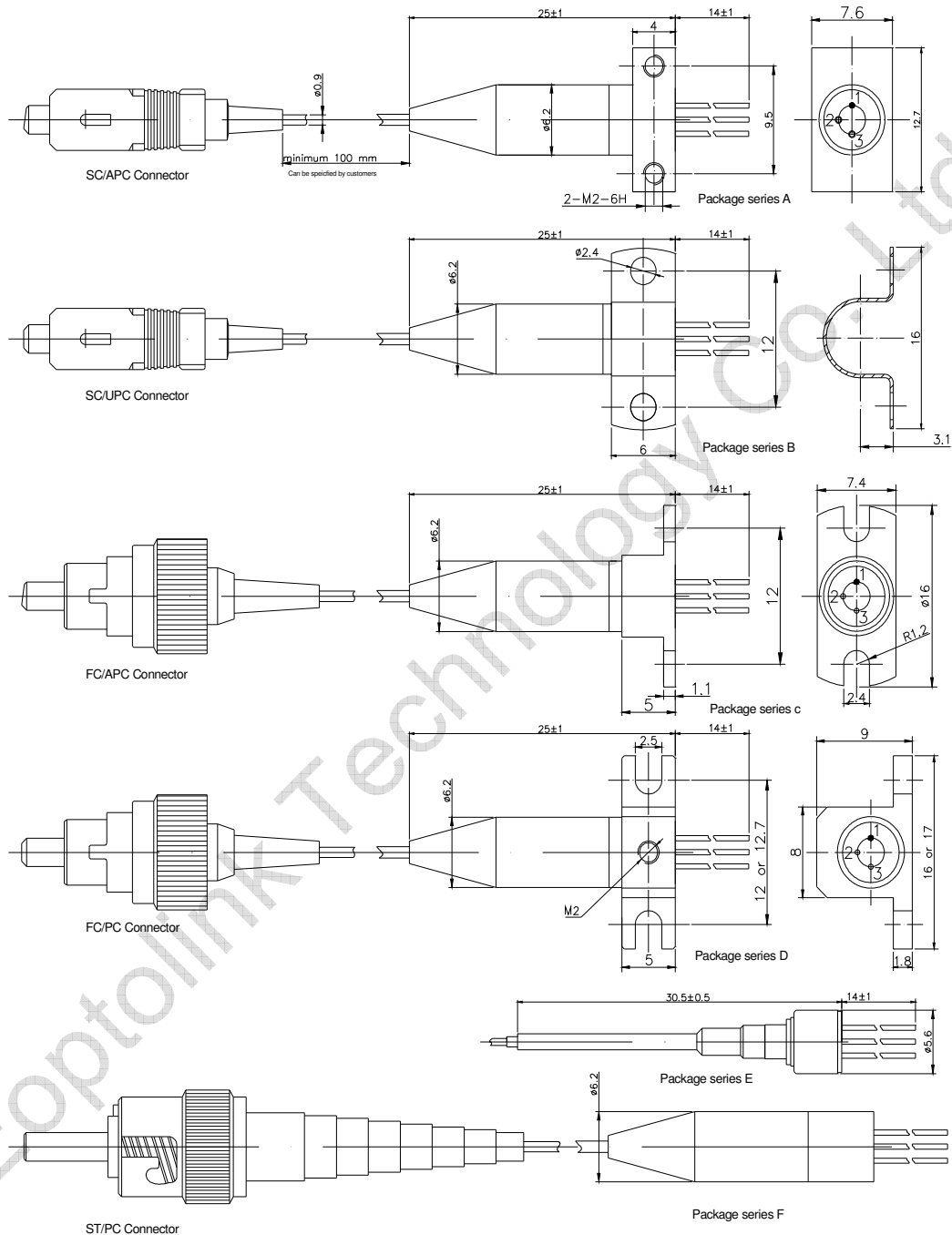
TYPE: M



TYPE: T



Pigtail Package dimension*Note2、3、4



*Note2: PIN direction and laser mark can be customized. Pigtail is standard SM fiber; the length also can be customized.

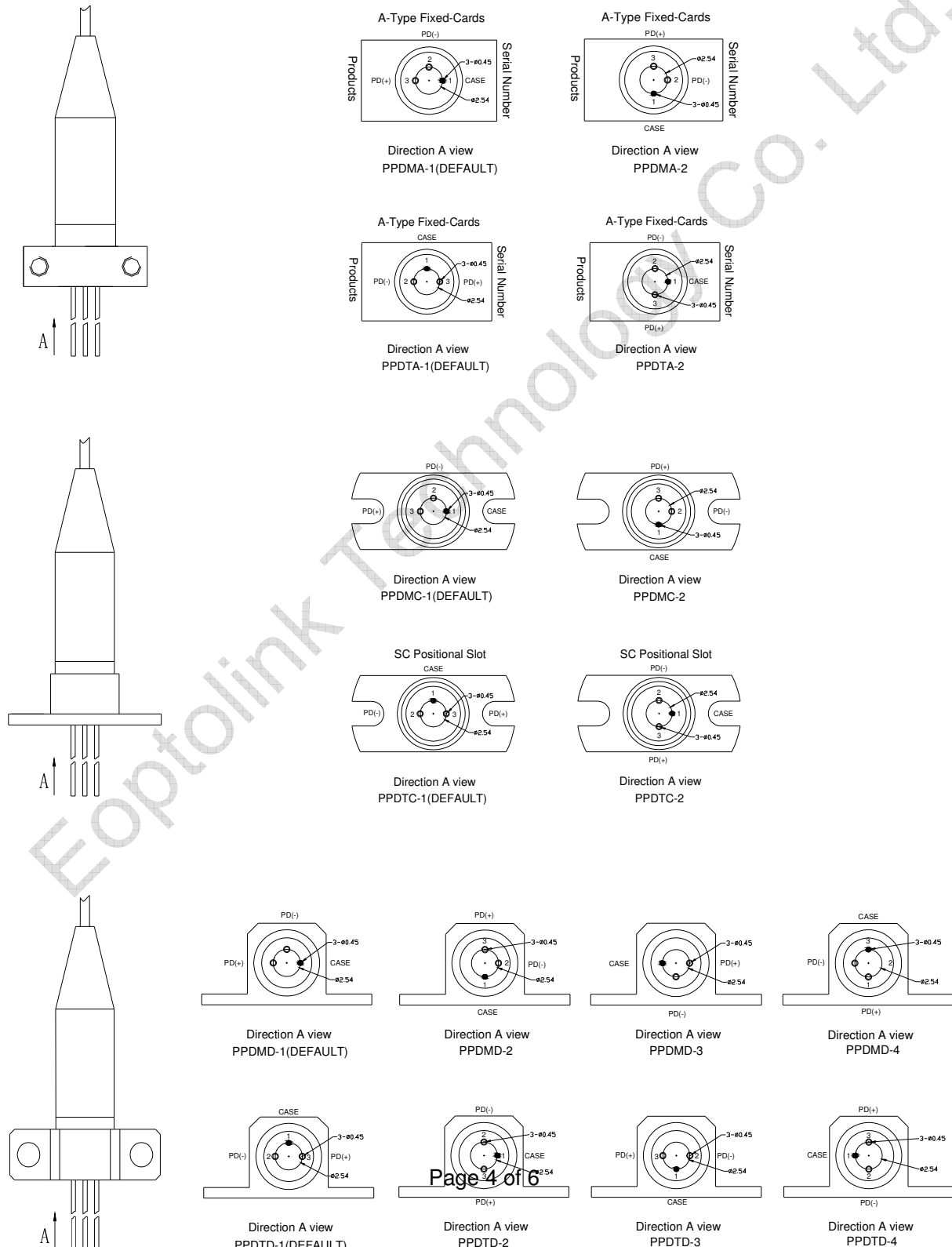
*Note3: For the package series D, the clamping rings dimensions (A) and drill size (B) are can be selected. The following types can be available. Please designate the detailed type while ordering the package series D.

	A(mm)	B(mm)
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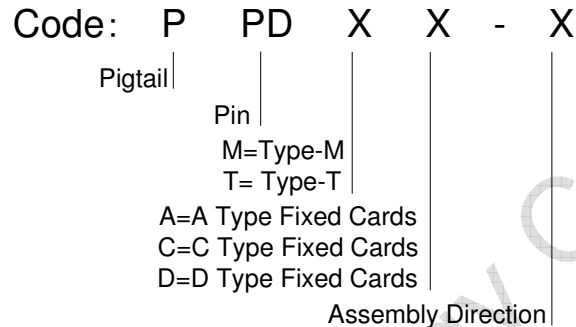
D	16	12
D-S	17	12.7

*Note4: 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 ^{*Note5}



*Note5: Please designate the code of assembly direction.

Ordering Information



A	Wavelength	20=1100~1610nm						
B	Explore area	2=75μm						
C	RF Bandwidth	2≤3.2GHz						
D	Package series	A	B	C	D	E	F	
E	Connector	F=FC/PC		S=SC/PC		T=ST/PC		SA=SC/APC
		FA=FC/APC		L=LC/PC		Blank=None		
F	Pin Type	M=PD-pin-M			T=PD-pin-T			
G	TO Type	G						
H	Pass Band Wavelength	Blank=1310/1550nm		3=1310nm		5=1550nm		
I	Fiber Type	Blank=SM			—M=MM			
J	Fiber diameter	BLANK=0.9mm	1=0.25mm	2=2.0mm	3=3.0mm			

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	Release Date
Va-4	Zore.Zhao	Kelly.Cao		2009-12-22

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