

## FEATURES:

- Low Dark Current
- Epoxy-free Optical Path
- 950 to 1625nm Spectral Response
- Planer Structure for High Reliability

## APPLICATIONS:

- Optical Time Domain Reflectometer (OTDR)
- SONET OC-48/SDH STM-16 Transmission System



## DESCRIPTION:

Go!Foton PMA55 Series is a pigtailed module with InGaAs APD chip. It is applicable to Optical Time Domain Reflectometer. APD chip is fabricated at Go!Foton proprietary wafer fab and assembled into a hermetically-sealed package. It shows low dark current characteristics and a flat power response across a wide wavelength range. This product is available with mounting brackets (Flange) to ease board assembly.

## SPECIFICATION:

The products supplied to this specification shall meet or exceed all the requirements specified herein.

### A. Absolute Maximum Rating

PARAMETER	SYMBOL	UNIT	SPECIFICATION			NOTES
			MIN.	TYP.	MAX.	
Operating Temperature	Top	°C	-40	-	+85	No condensation
Operating humidity Range (No Condensation)	RH <sub>OP</sub>	%	5	-	95	-
Storage Temperature Range	T <sub>STG</sub>	°C	-40	-	+85	No condensation
Storage Humidity Range (No Condensation)	RH <sub>STG</sub>	%	5	-	95	-
Forward Current	I <sub>F</sub>	mA	-	-	10	-
Reverse Current	I <sub>R</sub>	mA	-	-	0.5	-
Electrostatic Discharge (ESD) Threshold	V <sub>ESD</sub>	V	-	-	250	Human Body Model
Soldering Temperature <sup>1)</sup>	T <sub>SOL</sub>	°C	-	250	-	-

Notes:

- 1) At least 2mm away from the device's body for < 10 seconds

## B. OPTICAL AND ELECTRICAL CHARACTERISTICS

Unless otherwise noted, test condition is at 1550nm, 25°C, Vr:5V.

PARAMETER	SYMBOL	UNIT	SPECIFICATION			NOTES
			MIN.	TYP.	MAX.	
Reverse Breakdown Voltage	Vbr	V	-	-	100	Ir=10uA
Dark Current	Id	nA	-	-	10	0.9 x Vbr
Responsivity	Rs	A/W	0.80	-	-	@ 1550nm, M=1
Multiplication Factor	M	-	20	-	-	@ 1550nm
Optical Return Loss	RL	dB	30	-	-	-
Operating Voltage	Vop	V	-	-	Vbr	-
Terminal Capacitance	Ct	pF	-	-	0.90	Vop=0.9Vbr, f=1MHz

## C. OTHER SPECIFICATIONS

PARAMETER	SYMBOL	UNIT	SPECIFICATION	NOTES
Fiber Type	FT	-	ITU652.D Compliant Fiber	-
Fiber Length	FL	mm	1000±100	-
Fiber Coloring	FC	-	Clear	-
Optical Connector	OC	-	None	-

## D. PACKAGE DIMENSIONS

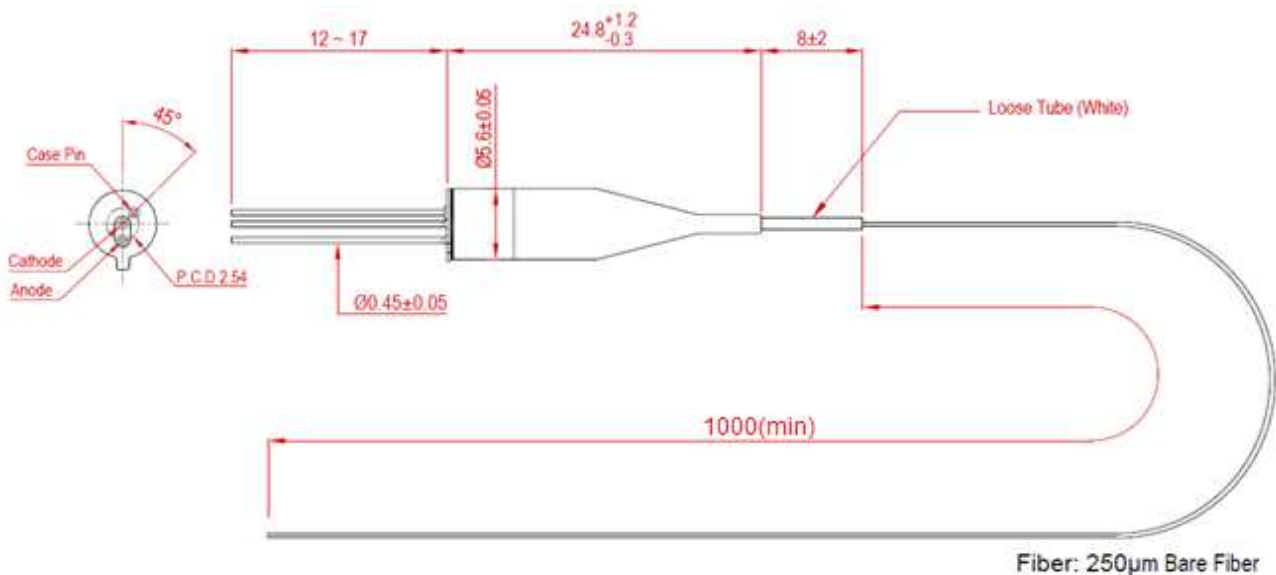


Figure 1. Pigtailed Avalanche Photo Detector Module (No Flange)

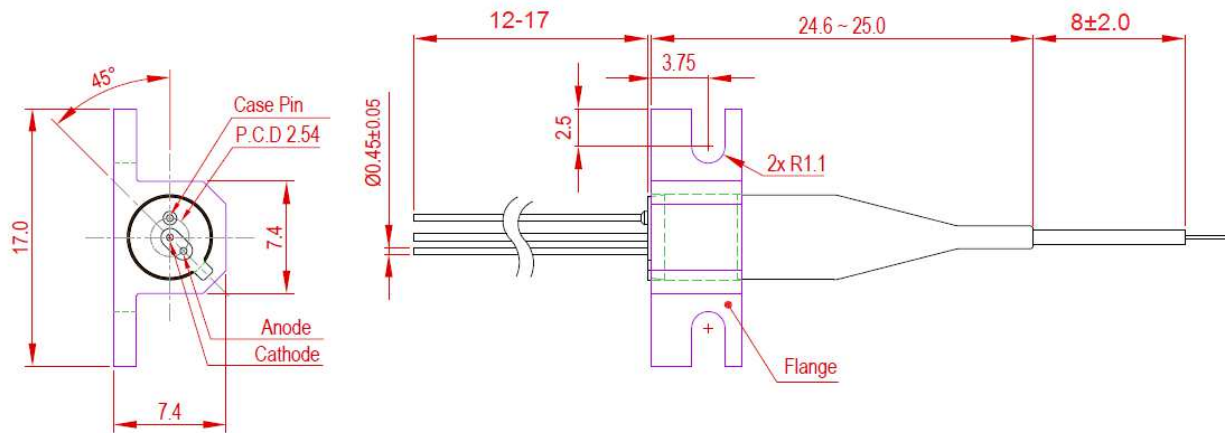


Figure 1. Pigttailed Avalanche Photo Detector Module (With Flange)

## E. ORDERING INFORMATION

<b>P</b>	<b>P</b>	<b>S</b>		<b>0</b>	<b>1</b>	<b>X</b>	<b>X</b>								<b>0</b>
1	2	3	4	5	6	7	8	9	10	11					

### Ordering Guide:

Please use this guide to create the product's model code.

FIELD NO.	FIELD DESCRIPTION	CODE	CODE DESCRIPTION	NOTES
1	Product Structure	PP	Pigtail PD	Default Code.
2	Packaging Size	S	Standard Package	See Figure 1
3	Product Grade	L	Low Leakage	Default Code.
4	Number of Channels	01	Single Channel	Default Code.
5	Tap Ratio	XX	Pigtail PD	Default Code.
6	Wavelength Range	C	1520-1570nm	-
		L	1570-1610nm	-
		F	1520-1610nm	-
		D	1270-1350nm+ 1520-1570nm	-
7	Fiber Type	1	250um (SMF)	-
		2	900um Loose Tube (SMF)	-
		3	900um Tight Buffer (SMF)	-
8	Fiber Length	1	1000mm	1000±100mm
		2	2000mm	2000±100mm
9	Flange/Mounting Bracket	0	No Flange	See Figure 1
		1	With Flange	See Figure 2

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FIELD NO.	FIELD DESCRIPTION	CODE	CODE DESCRIPTION	NOTES
10	Connector (INPUT Port)	0	None	-
		1	FC/SPC	-
		2	FC/APC	-
		3	SC/SPC	-
		4	SC/APC	-
		5	LC/PC	-
		6	MU/PC	-
11	Connector (OUTPUT Port)	0	None	Default Code.

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