

400-1100nm SM Pigtailed SI Avalanche Photodiode

400-1100nm SM Pigtailed SI Avalanche Photodiode is a semiconductor optoelectronic product designed for detecting light signal by transferring the light signal to electric signal, SM Pigtailed Avalanche Photodiode utilizes the avalanche multiplication effect to amplify the optoelectronic signal to improve the detection sensitivity, it's widely used in fiber optic sensor and Laser Lidar field, the pigtailed fiber can be customized upon request.

Application:

Laser Lidar
Fiber Optic Sensor
Computed Tomography
High Resolution OCT

Features:

High Response
Low Dark Current
High Multiplication Gain
High Reliability



Absolute Maximum Ratings:

Parameter	Symbol	Value	Unit
Reverse Voltage	V _r	0.95*V _{br}	V
Forward Current	I _f	1	mA
Operating Temperature	T	-40~+85	°C
Storage Temperature	T	-40~+85	°C
Solder Temperature	T	260	°C
Lead Solder Time		10	S

Notice: Above specifications should not be exceeded, or the Photodiode will be seriously damaged.

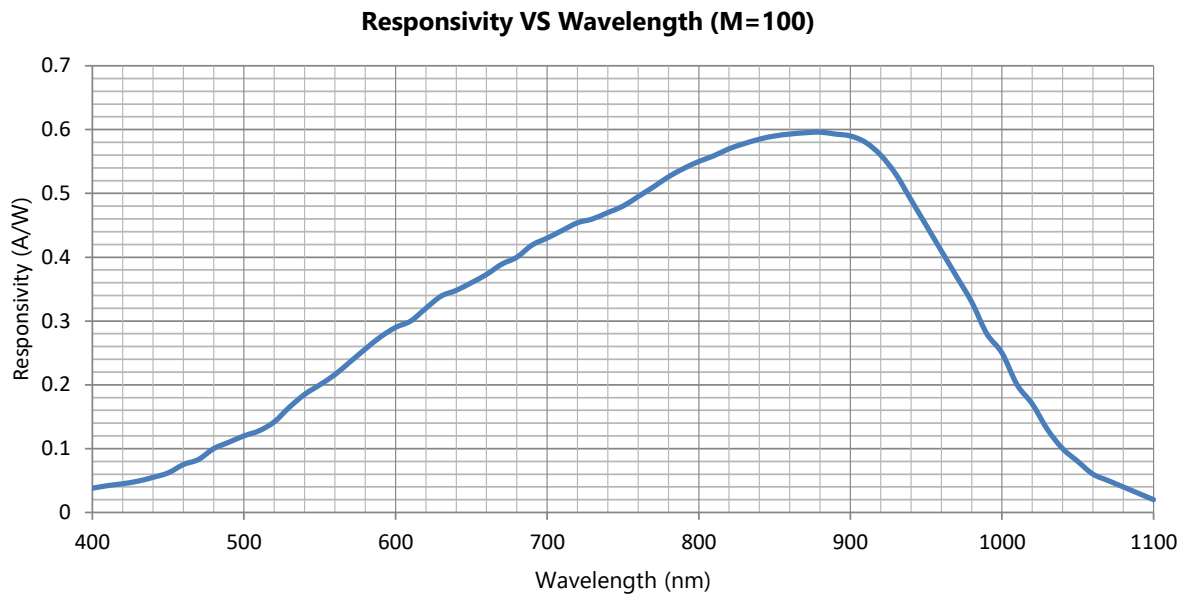
Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	Condition
Wavelength Range	λ	400		1100	nm	
Maximum Peak Input Power	P			0.15	mW	10ns, 10kHz
Dark Current	I _d		0.03	1	nA	M=100
Responsivity	λ=905nm	R	0.58		A/W	1uW, M=1
Multiplication gain	λ=905nm, 0.8V _{br}	M	60		-	1uW
	λ=905nm, 0.85V _{br}		100		-	1uW
Operating Voltage	V _r			110	V	
Breakdown Reverse voltage	V _{br}	120		200	V	I _r =10uA
Junction capacitance	C _j		1		Pf	M=100, f=1MHz
Active Diameter	A _d		230		um	
Response Time	T _r		0.3		ps	λ=905nm
Return Loss	RL	45	50		dB	
Fiber Type	SM Fiber					

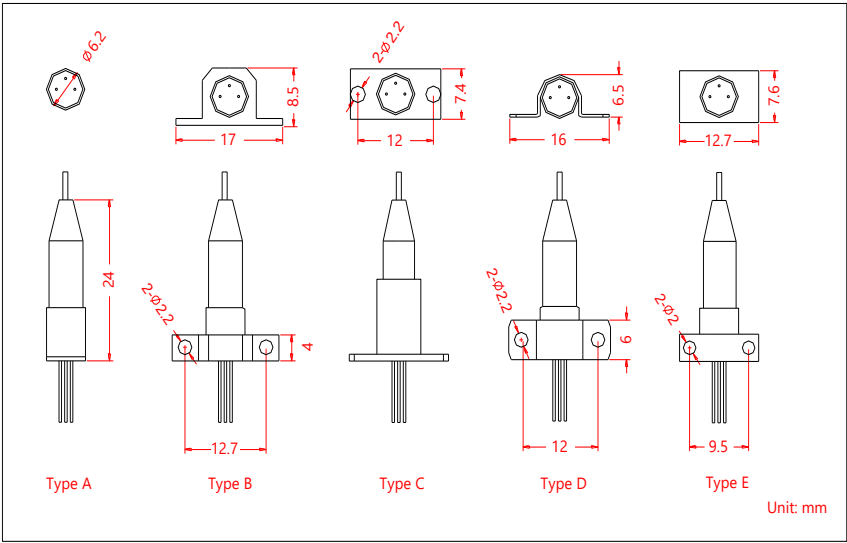
Notice: Above specifications are tested in room temperature at 25°C.

Specifications may change without notice.

Wavelength VS Responsivity Curve:



Drawing:



Pin Information:

	Type A	
	Pin 1	PD +
	Pin 2	PD -
	Pin 3	Case

	Type B	
	Pin 1	PD +
	Pin 2	PD -
	Pin 3	Case

	Type B	
	Pin 1	PD +
	Pin 2	Case
	Pin 3	PD -

Ordering Information (Part Number):

SMIFAPD- WWW - AAA - S - P - J - LL - CC						
WWW	AAA	S	P	J	LL	CC
Response Wavelength	Active Diameter	Saddle Type	Pin Assingment	Fiber Jacket	Fiber Length	Connector
905 - 905nm SSS - Specify	Z23 - Φ 0.23mm SS - Specify	A - Type A B - Type B C - Type C D - Type D E - Type E	A - Type A B - Type B C - Type C	B - 250um Bare Fiber L - 900um Loose Tube	05 - 0.5m 10 - 1.0m 15 - 1.5m 20 - 2.0m SS - Specify	NE - None FA - FC/APC FU - FC/UPC LA - LC/APC LU - LC/UPC SA - SC/APC SU - SC/UPC ST - ST/UPC

Notification:

1. The Semiconductor Optoelectronic products are particularly sensitive to ESD (electro-static discharge), it's recommended to use grounded anti-static wrist straps and grounded anti-static mats before handling the products.
2. Always take anti-static measures to store the products when not in use.

