

## 400-1100nm SM Pigtailed SI PIN Photodiode

400-1100nm SM Pigtailed SI Photodiode is a semiconductor optoelectronic product designed for detecting light signal by transferring the light signal to electric signal, SM Pigtailed SI Photodiode is built with Silicon chip material and terminated with SM pigtail to detect the light with high responsibility and low dark current, it's widely used in fiber optic sensor and optic electric communication field, the pigtailed fiber can be customized upon request.

### Application:

Fiber Communication  
Fiber Optic Sensor  
Computed Tomography  
Testing System

### Features:

High Response  
Low Dark Current  
Low Capacitance  
High Reliability



### Absolute Maximum Ratings:

Parameter	Symbol	Value	Unit
Reverse Voltage	V <sub>r</sub>	30	V
Forward Current	I <sub>f</sub>	10	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.

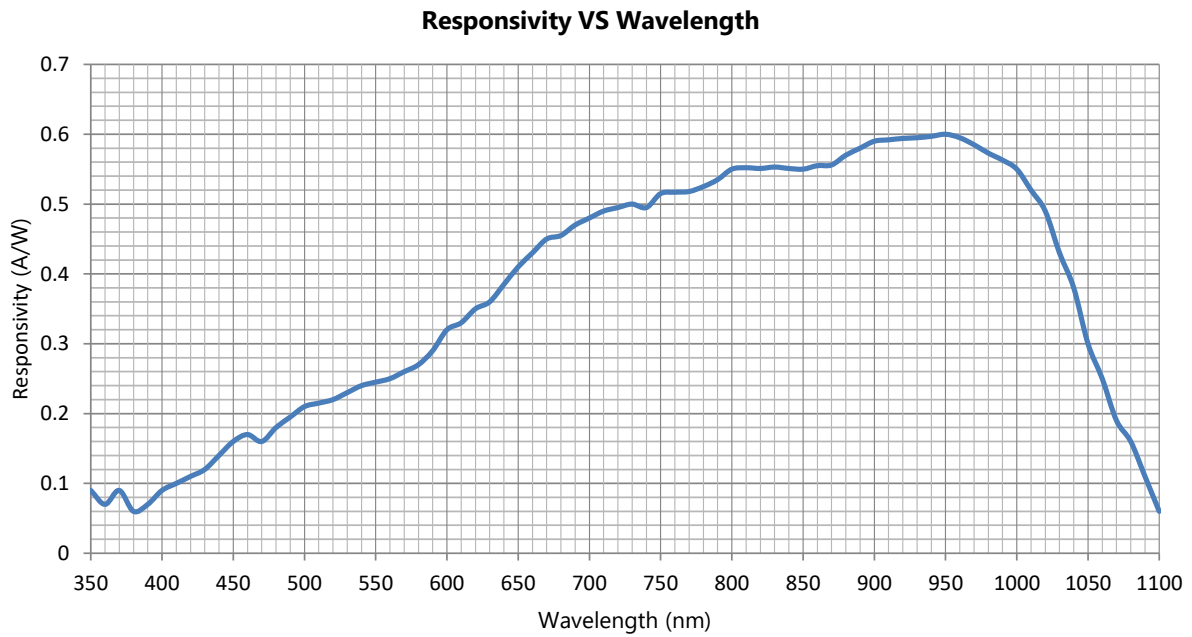
### Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	Condition
Wavelength Range	λ	400		1100	nm	
Saturated Optical Power	P		15		mW	V <sub>r</sub> =5V
Dark Current	I <sub>d</sub>		0.2		pA	V <sub>r</sub> =0V
			60		pA	V <sub>r</sub> =5V
Responsivity	R		λ=405nm	0.15	A/W	V <sub>r</sub> =0V
			λ=650nm	0.40	A/W	
			λ=850nm	0.55	A/W	
			λ=905nm	0.59	A/W	
			λ=1064nm	0.25	A/W	
Operating Voltage	V <sub>r</sub>	0		20	V	
Breakdown Reverse voltage	V <sub>b</sub>			80	V	I <sub>r</sub> =10uA
Junction capacitance	C <sub>j</sub>		50		Pf	V <sub>r</sub> =0V
			6		Pf	V <sub>r</sub> =5V
Active Diameter	A <sub>d</sub>		1.2x1.2		mm	
Response Time (Raise/Fall)	T <sub>r</sub> /T <sub>f</sub>		1.4	2	ns	
Return Loss	RL	45	50		dB	
Fiber Type	HI 780 Fiber					

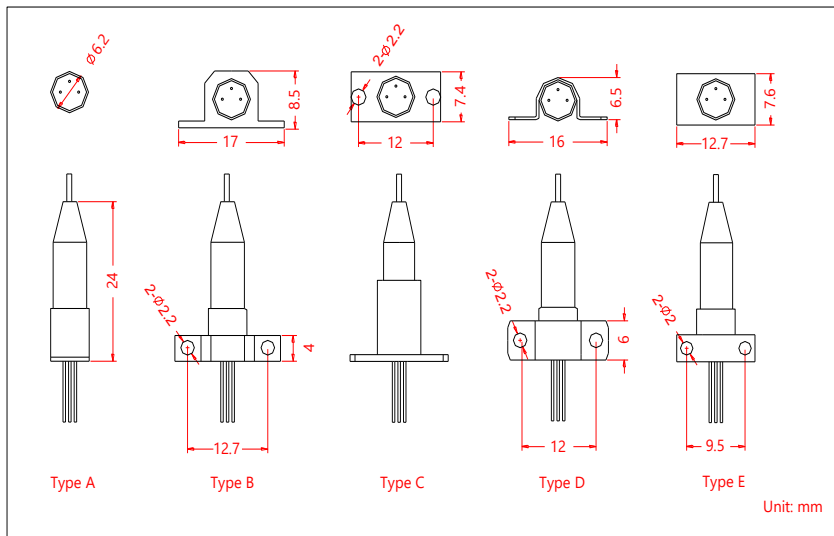
Notice: Above specifications are tested in room temperature at 25°C.

Specifications may change without notice.

**Wavelength VS Responsivity Curve:**



**Drawing:**



**Pin Information:**

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

**Ordering Information (Part Number):****SMSIPD-WWW-AA-S-P-J-LL-CC**

<b>WWW</b>	<b>AA</b>	<b>S</b>	<b>P</b>	<b>J</b>	<b>LL</b>	<b>CC</b>
<b>Test Wavelength</b>	<b>Active Diameter</b>	<b>Saddle Type</b>	<b>Pin Assingment</b>	<b>Fiber Jacket</b>	<b>Fiber Length</b>	<b>Connector</b>
405 - 405nm	12 - 1.2x1.2mm	A - Type A	A - Type A	B - 250um Bare Fiber	05 - 0.5m	NE - None
650 - 650nm	SS - Specify	B - Type B	B - Type B	L - 900um Loose Tube	10 - 1.0m	FA - FC/APC
850 - 850nm		C - Type C	C - Type C		15 - 1.5m	FU - FC/UPC
905 - 905nm		D - Type D			20 - 2.0m	LA - LC/APC
1064 - 1064nm		E - Type E			SS - Specify	LU - LC/UPC
SSS - Specify						SA - SC/APC
						SU - SC/UPC
						ST - ST/UPC

**Notification:**

1. The Semiconductor Optoelectronic products are particularly sensitive of 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 storage the products when not in use.

