

## 800-2100nm 0.5mm InGaAs PIN Photodiode

Version: 3.1 17-03-01

### Model: LSIPD21-0.5

#### Features:

- Low noise, High reliability
- 800-2100nm wide wavelength range
- Active diameter 0.5mm
- Hermetic package TO46 Can or with receptacle or with fiber coupling



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Fiber coupling

#### Applications:

- Gas Analyzer
- Environment measurement
- Optical sensor, Temperature sensing
- Covert IR sensing, Spectrography
- Medical and Chemical analysis
- Optical power meter, Space light detect equipment



2JKFC



4JKFC

#### Absolute maximum ratings:

parameter	symbol	value	unit
Operating temperature	Top	-40~+85	°C
Storage temperature	Tstg	-50~+125	°C
Forward current	I <sub>f</sub>	8	mA
Reverse voltage	V <sub>R</sub>	2	V
Soldering temperature(time)	T <sub>s</sub> (10s)	260	°C

#### Electrical and optical characteristics:(T=25°C)

parameter	symbol	unit	Value (typ.)
Active diameter	Φ	mm	0.5
Spectral range	λ	nm	800-2100
Responsivity	Re (V <sub>R</sub> =1V,λ=850nm )	mA/mW	0.23
	Re (V <sub>R</sub> =1V,λ=1310nm )	mA/mW	0.7
	Re(V <sub>R</sub> =1V,λ=1850nm)	mA/mW	1.2
	Re(V <sub>R</sub> =1V,λ=2100nm)	mA/mW	0.9
Response time	Tr (R <sub>L</sub> =50Ω, V <sub>R</sub> =1V)	ns	6
Dark current	I <sub>D</sub> (V <sub>R</sub> =0V)	nA	4
	I <sub>D</sub> (V <sub>R</sub> =1V)	nA	50
Reverse Breakdown voltage	V <sub>BR</sub> (I <sub>R</sub> =10uA)	V	5
Junction capacitance	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =0V)	pF	110
	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =1V)	pF	40
Saturated Optical Power	Ps(V <sub>R</sub> =1V)	mW	6
Operating voltage	V <sub>R</sub>	V	0-1
Shunt impedance	Rsh (V <sub>R</sub> =10mV)	MΩ	1.5
package	Hermetic package TO46 Can or with receptacle or fiber coupling		

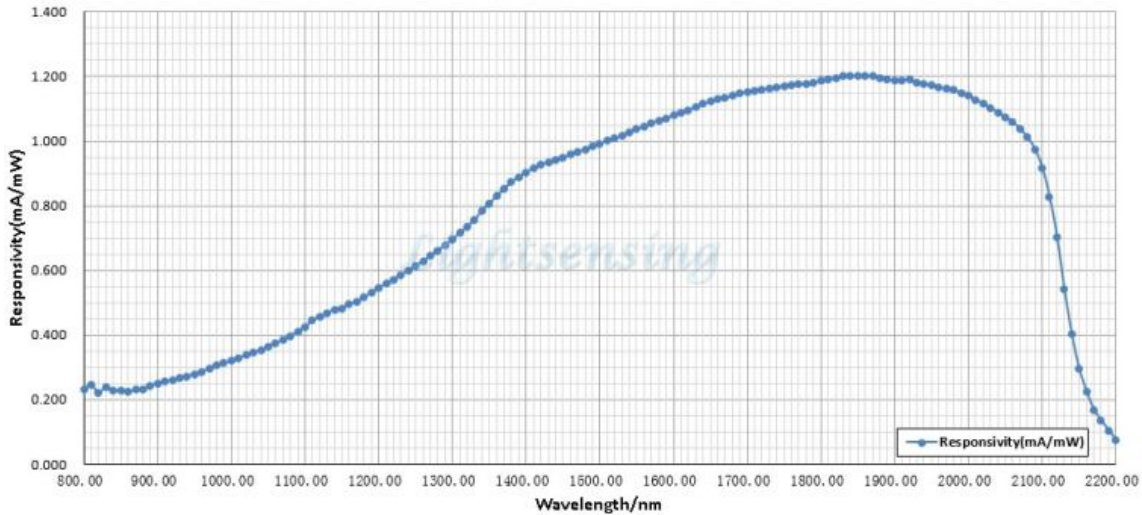
NOTICE: The above product specifications are subject to change without notice.

地址: 北京市海淀区苏州街 12 号西屋国际 E 座 1201 邮编: 100080

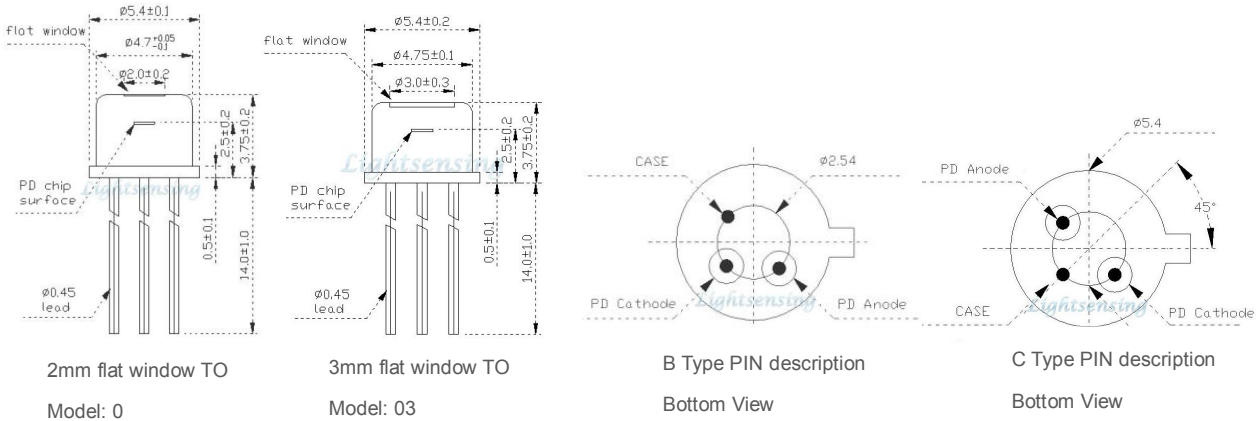
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## The typical Sensitivity curve



## TO package and Lead



**Note:** In order to get other dimensions, please contact us.

## Order information

LSIPD21-0.5-X-X ↙ B=B Type PIN description C=C Type PIN description	X=0	TO-46 Can with 2mm flat window cap
	X=03	TO-46 Can with 3mm flat window cap
	X=SMFA/P	TO-46 Can with SM Fiber coupling with FC-APC/FC-PC connector
	X=SMSA	TO-46 Can with SM Fiber coupling with SC-APC connector
	X=5MMFA/P	TO-46 Can with 50um MM Fiber coupling with FC-APC/FC-PC connector
	X=6MMFA/P	TO-46 Can with 62.5um MM Fiber coupling with FC-APC/FC-PC connector
	X=10MMFA/P	TO-46 Can with 105um MM Fiber coupling with FC-APC/FC-PC connector
	X=20MMFA/P	TO-46 Can with 200um MM Fiber coupling with FC-APC/FC-PC connector
	X=2JKFC	TO-46 Can with fixed receptacle with FC connector and 2 pieces of fix holes
	X=4JKFC	TO-46 Can with fixed receptacle with FC connector and 4 pieces of fix holes
	X=Other	By customer's request

## The cautions

- 1: The above product specifications are subject to change without notice.
- 2: The suitable ESD protecting measures are recommend in storage,transporting and using.
- 3: The fiber bending radius no less than 20mm for avoiding fiber damaged ,Be sure the fiber coupling facet is clean before connecting it to opto-circuit.

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