

# 1.2mm UV Silicon PIN photodiode

Version: 3.1 17-03-01

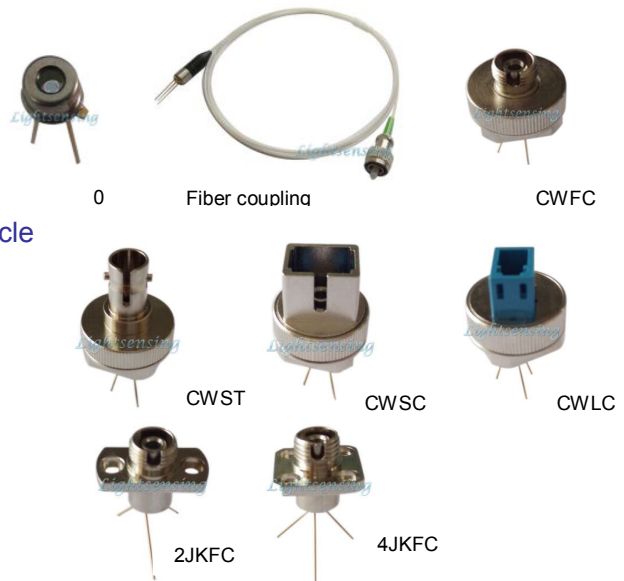
## Model: LSSPD-U1.2

### Features:

- High reliability, low dark current
- 200-1100nm spectral range
- Active diameter 1.2x1.2mm
- Hermetic TO46 Can with UV window or with receptacle

### Applications:

- Optical sensor
- Optical power meter
- Industrial automatic control
- Science analysis and experiment
- Space light detect equipment
- Response spectrum testing



### Absolute maximum ratings:

parameter	symbol	value	unit
Operating temperature	Top	-40~+85	°C
Storage temperature	Tstg	-40~+100	°C
Forward current	I <sub>f</sub>	10	mA
Reverse voltage	V <sub>r</sub>	20	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	1.2x1.2
Spectral range	λ	nm	200-1100
Responsivity	Re(V <sub>R</sub> =0V,λ=200nm)	mA/mW	0.08
	Re(V <sub>R</sub> =0V,λ=405nm)	mA/mW	0.28
	Re(V <sub>R</sub> =0V,λ=650nm)	mA/mW	0.43
	Re(V <sub>R</sub> =0V,λ=905nm)	mA/mW	0.55
	Re(V <sub>R</sub> =0V,λ=1064nm)	mA/mW	0.22
Response time	T <sub>r</sub> (R <sub>L</sub> =50Ω, V <sub>R</sub> =5V)	ns	8
Dark current	I <sub>d</sub> (V <sub>R</sub> =0V)	pA	0.2
	I <sub>d</sub> (V <sub>R</sub> =5V)	pA	100
Reverse Breakdown voltage	V <sub>BR</sub> (I <sub>R</sub> =10uA)	V	40
Junction capacitance	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =0V)	pF	190
	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =5V)	pF	40
Saturated Optical Power	P <sub>S</sub> (V <sub>R</sub> =5V)	mW	15
Operating voltage	V <sub>R</sub>	V	0-15
Shunt resistance	R <sub>sh</sub> (V <sub>R</sub> =10mV)	GΩ	50
package	Hermetic TO46 Can with UV window or with receptacle or fiber coupling		

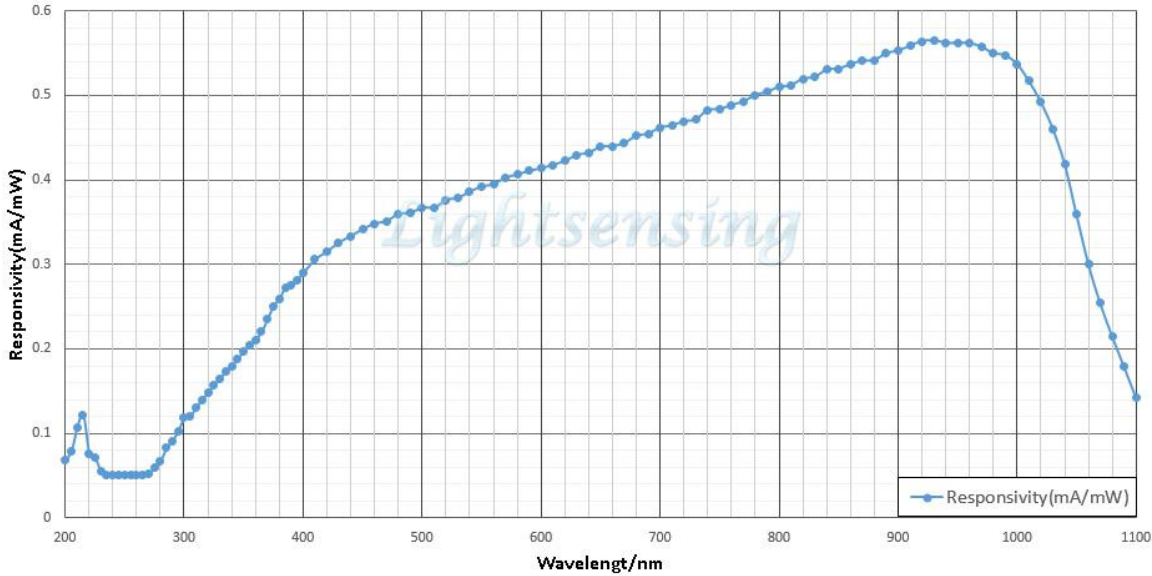
**NOTICE:** The above product specifications are subject to change without notice.

地址: 北京市海淀区苏州街12号西屋国际E座1201 邮编: 100080

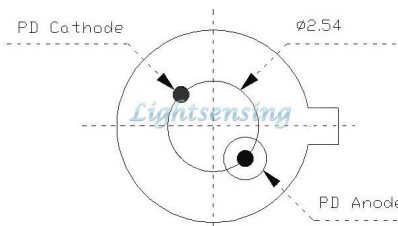
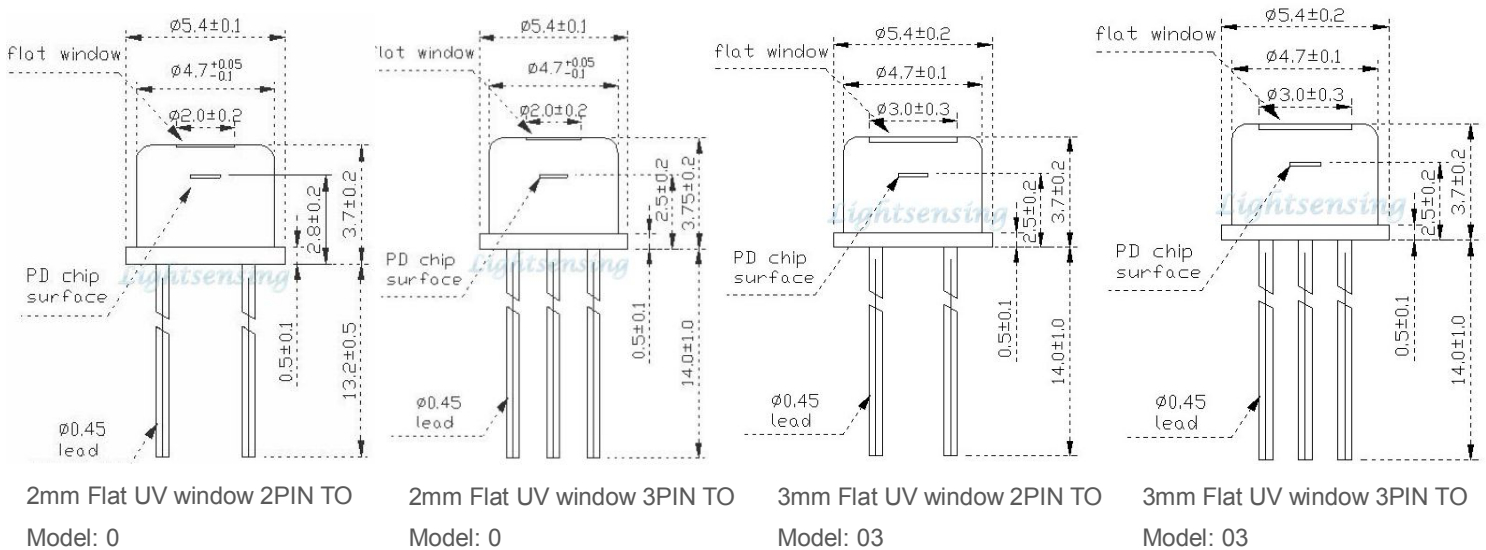
Address: Building E Rm 1201, Westing house, No 12 Suzhou Street,, Haidian District, Beijing 100080, China.

TEL: +86-010-82873449 FAX: +86-010-62557230 Email: [info@lightsensing.com](mailto:info@lightsensing.com) Website: [www.lightsensing.com](http://www.lightsensing.com)

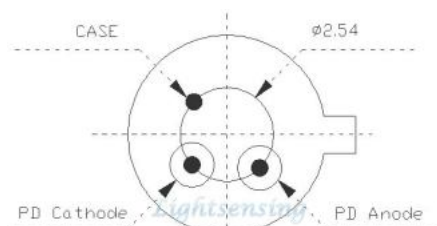
### The typical Responsivity curve



### TO package and Lead



2 PIN Bottom View



3 PIN B Type PIN description Bottom View

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

## Order information

LSSPD-U1.2-X-X

X=2P 2 PIN out

X=3P 3 PIN out

X=0

TO-46 Can with 2mm UV window cap

X=03

TO-46 Can with 3mm UV 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=CWFC

TO-46 Can with replaceable receptacle with FC connector

X=CWSC

TO-46 Can with replaceable receptacle with SC connector

X=CWLC

TO-46 Can with replaceable receptacle with LC connector

X=CWST

TO-46 Can with replaceable receptacle with ST 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. **Example, We can provide photodiode with filter.**

## The cautions

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

2: The suitable ESD protection is required in storage, transportation 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.