

## 2.5mm Silicon PIN photodiode

Version: 3.1 17-03-01

### Model: LSSPD-2.5

#### Features:

- High reliability, low dark current
- 400-1100nm spectral range
- 650nm responsivity up to 0.44mA/mW
- Active diameter 2.5x2.5mm
- Hermetic TO5 Can or with receptacle

#### Applications:

- Optical sensor and Optical power meter
- Industrial automatic control
- IR/ Laser light Monitoring
- Fluorescence detector
- Medical equipment
- Spectrophotometry/CT scan



#### 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>	13	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	2.5x2.5
Spectral range	λ	nm	400-1100
Responsivity	Re(V <sub>R</sub> =5V,λ=405nm)	mA/mW	0.07
	Re(V <sub>R</sub> =5V,λ=650nm)	mA/mW	0.44
	Re(V <sub>R</sub> =5V,λ=850nm)	mA/mW	0.59
	Re(V <sub>R</sub> =5V,λ=1064nm)	mA/mW	0.25
Response time	T <sub>r</sub> (R <sub>L</sub> =50Ω, V <sub>R</sub> =5V)	ns	5
Dark current	I <sub>d</sub> (V <sub>R</sub> =0V)	PA	0.5
	I <sub>d</sub> (V <sub>R</sub> =5V)	PA	200
Reverse Breakdown voltage	V <sub>BR</sub> (I <sub>R</sub> =10uA)	V	70
Junction capacitance	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =0V)	pF	90
	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =5V)	pF	20
Saturated Optical Power	P <sub>s</sub> (V <sub>R</sub> =5V)	mW	20
Operating voltage	V <sub>R</sub>	V	0-15V
Shunt resistance	R <sub>sh</sub> (V <sub>R</sub> =10mV)	GΩ	20
package	Hermetic TO5 Can or with receptacle		

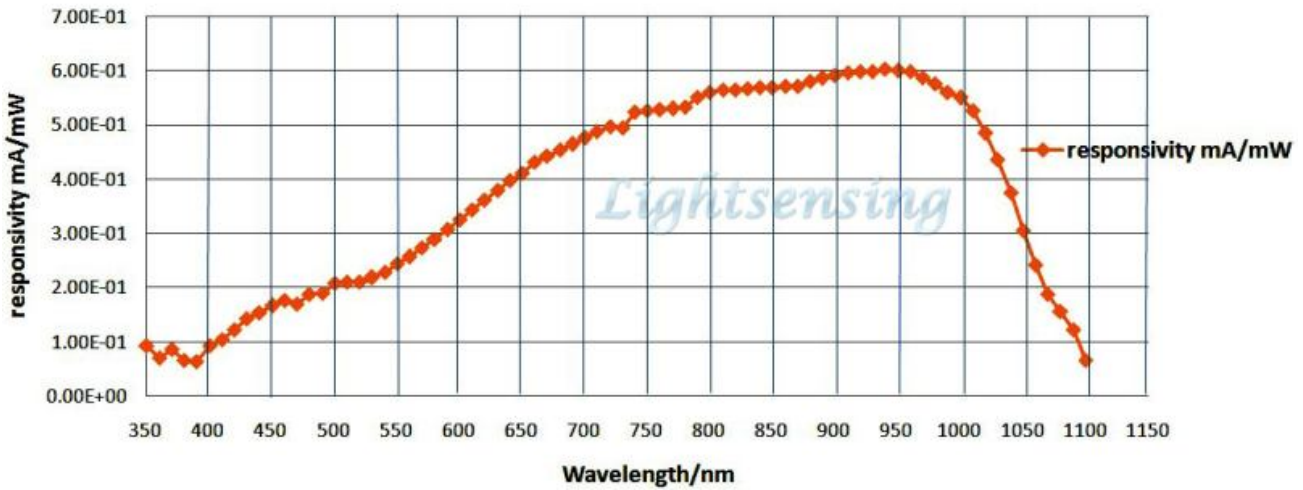
**NOTICE:** The above product specifications are subject to change without notice.

地址: 北京市海淀区苏州街12号西屋国际E座1201 邮编: 100080

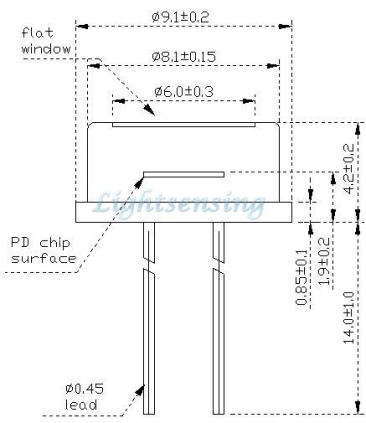
Address: Building E Rm 1201, Westing house, No 12 Suzhou Street,, Haidian District, Beijing 100080, China.

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

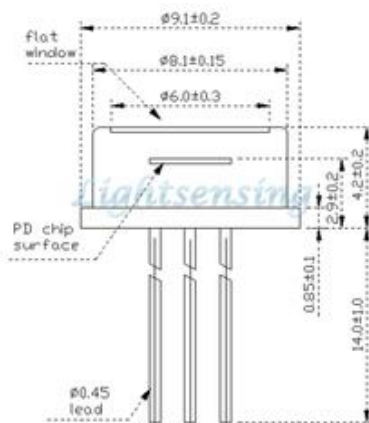
### The typical Responsivity curve



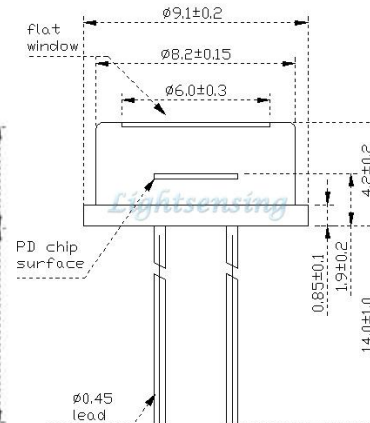
### TO package and Lead



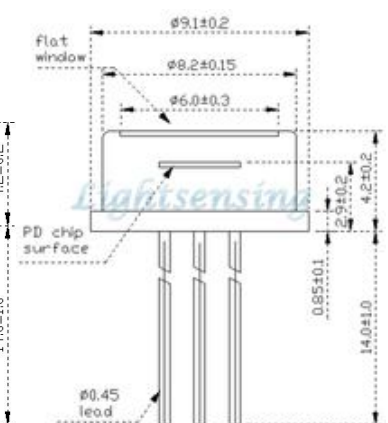
flat window 2 PIN 8.1mm TO  
Model: 08.1



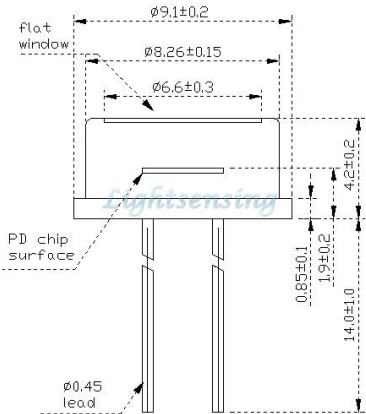
flat window 3PIN 8.1mm TO  
Model: 08.1



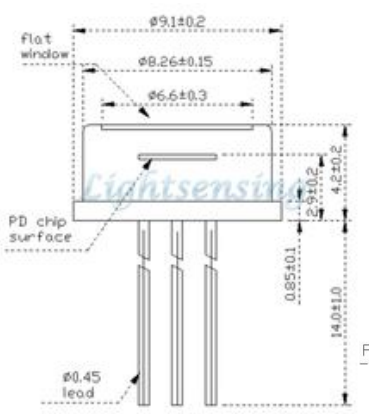
flat window 2 PIN 8.20mm TO  
Model: 08.20



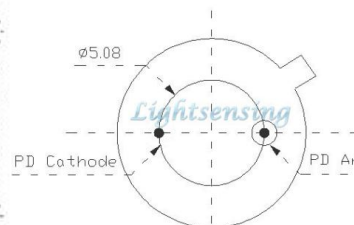
flat window 3PIN 8.20mm TO  
Model: 08.20



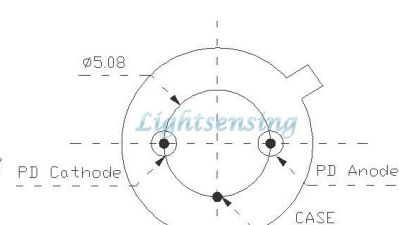
flat window 2 PIN 8.26mm TO  
Model: 08.26



flat window 3PIN 8.26mm TO  
Model: 08.26



2PIN Bottom View



3PIN Bottom View

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

## Order information

LSSPD-2.5-X-X

X=2P 2 PIN out

X=3P 3 PIN out

X=08.1

X=08.20

X=08.26

X=CWFC

X=CWSC

X=CWLC

X=CWST

X=20CWFC

X=20CWSC

X=20CWST

X=20CWLC

X=Other

TO-5 Can with flat window  $\Phi$ 8.1mm nickel cap

TO-5 Can with flat window  $\Phi$ 8.20mm nickel cap

TO-5 Can with flat window  $\Phi$ 8.26mm nickel cap

TO-5 Can with replaceable receptacle with FC connector

TO-5 Can with replaceable receptacle with SC connector

TO-5 Can with replaceable receptacle with LC connector

TO-5 Can with replaceable receptacle with ST connector

TO-5 Can with 20mm replaceable receptacle with FC connector

TO-5 Can with 20mm replaceable receptacle with SC connector

TO-5 Can with 20mm replaceable receptacle with ST connector

TO-5 Can with 20mm replaceable receptacle with LC connector

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