# 4.2mm Silicon PIN photodiode

Model: LSSPD-4.2

Features:

- High reliability, low dark current
- 400-1100nm spectral range
- 980nm responsivity up to 0.67mA/mW
- Ultra large active diameter 4.2x4.2mm for TO5 Can
- 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

08.26   CWFC
CWSC   CWLC   CWST
20CWFC   20CWSC   20CWST   20CWLC
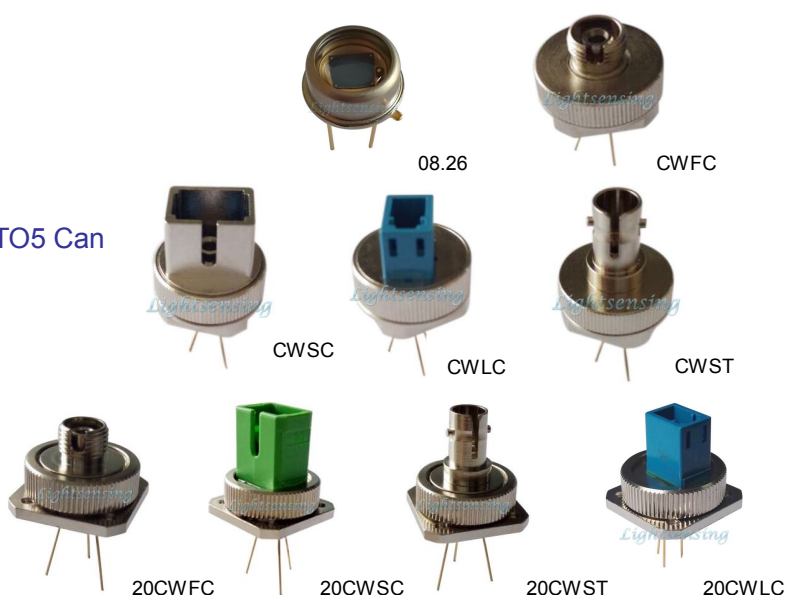
Absolute maximum ratings:

parameter	symbol	value	unit
Operating temperature	Top	-40～+85	℃
Storage temperature	Tstg	-40～+100	℃
Forward current	I_f	13	mA
Reverse voltage	V_r	20	V
Soldering temperature(time)	Ts（10s）	260	℃

Electrical and optical characteristics:(T=25℃)

parameter	symbol	unit	Value（typ.）
Active diameter	Φ	mm	4.2x4.2
Spectral range	λ	nm	400-1100
Responsivity	Re(V_R=5V,λ=405nm)	mA/mW	0.1
	Re(V_R=5V,λ=650nm)	mA/mW	0.40
	Re(V_R=5V,λ=850nm)	mA/mW	0.55
	Re(V_R=5V,λ=980nm)	mA/mW	0.67
	Re(V_R=5V,λ=1064nm)	mA/mW	0.29
Response time	Tr (R_L=50Ω,V_R=5V)	ns	100
Dark current	Id(V_R=0V)	nA	0.2
	Id(V_R=5V)	nA	1
Reverse Breakdown voltage	V_{BR} (I_R=10uA)	V	60
Junction capacitance	Cj (f=1MHz, V_R=0V)	pF	200
	Cj (f=1MHz, V_R=5V)	pF	40
Saturated Optical Power	Ps(V_R =5V)	mW	25
Operating voltage	V_R	V	0-15
Shunt resistance	R_{sh} (V_R=10mV)	MΩ	50
package	Hermetic TO5 Can or with receptacle		

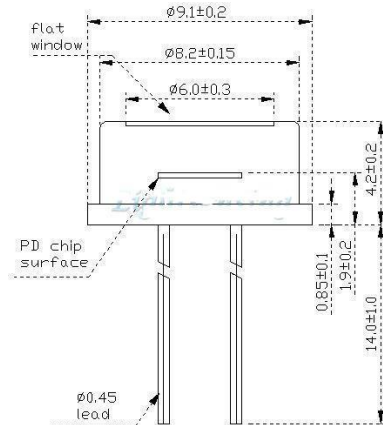**NOTICE:** The above product specifications are subject to change without notice.

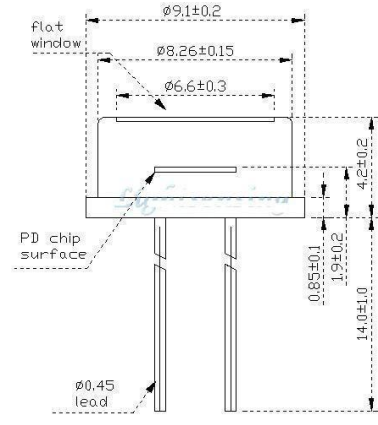# The typical Responsivity curve
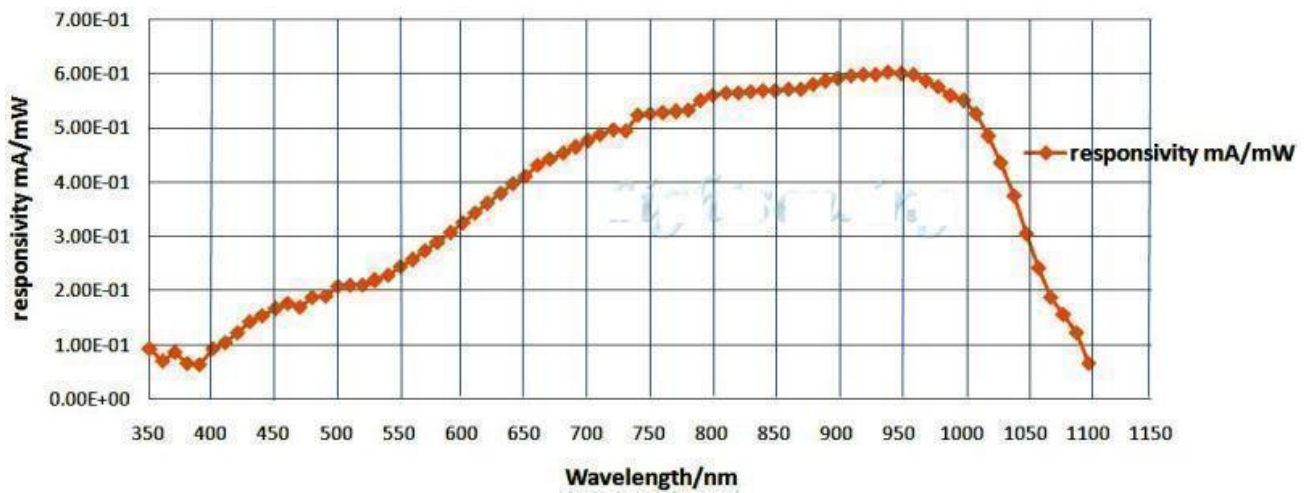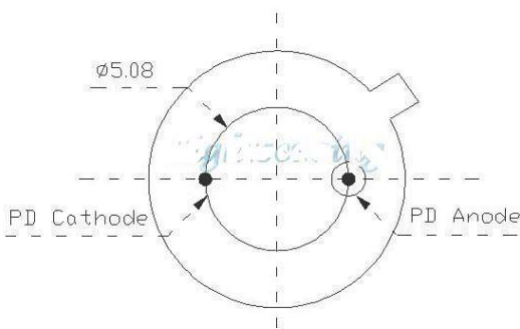

TO package and Lead
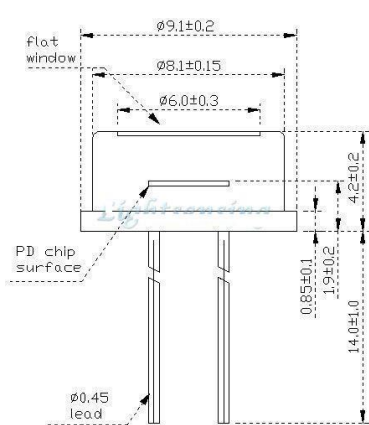
flat window 2 PIN 8.1mm TO
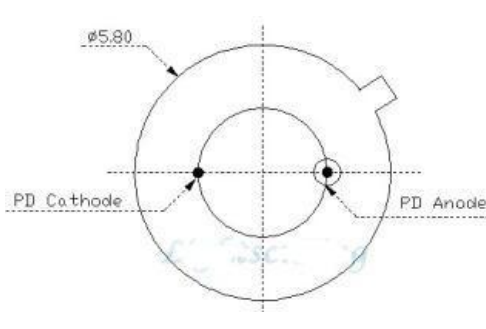Model: 08.1

flat window 2 PIN 8.20mm TO
Model: 08.20

flat window 2 PIN 8.26mm TO
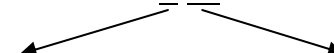Model: 08.26

2PIN Bottom View

B type 2PIN Bottom View

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

Order information

LSSPD-4.2-X-X

X=2P   2 PIN out

X=B2P   B type 2 PIN out

X=08.1	TO-5 Can with flat window Φ8.1mm nickel cap
X=08.20	TO-5 Can with flat window Φ8.20mm nickel cap
X=08.26	TO-5 Can with flat window Φ8.26mm nickel cap
X=CWFC	TO-5 Can with replaceable receptacle with FC connector
X=CWSC	TO-5 Can with replaceable receptacle with SC connector
X=CWLC	TO-5 Can with replaceable receptacle with LC connector
X=CWST	TO-5 Can with replaceable receptacle with ST connector
X=20CWFC	TO-5 Can with 20mm replaceable receptacle with FC connector
X=20CWSC	TO-5 Can with 20mm replaceable receptacle with SC connector
X=20CWST	TO-5 Can with 20mm replaceable receptacle with ST connector
X=20CWLC	TO-5 Can with 20mm replaceable receptacle with LC connector
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