

## 2.5mm Silicon PIN photodiode

**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>	10	mA
Reverse voltage	V <sub>r</sub>	30	V
Soldering temperature(time)	T <sub>s</sub> (10s)	260	°C

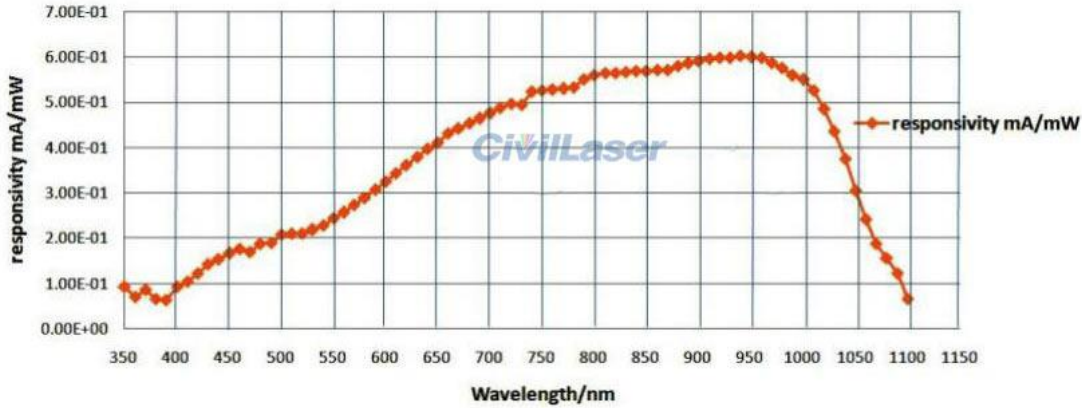
### Electrical and optical characteristics:(T=25°C)

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

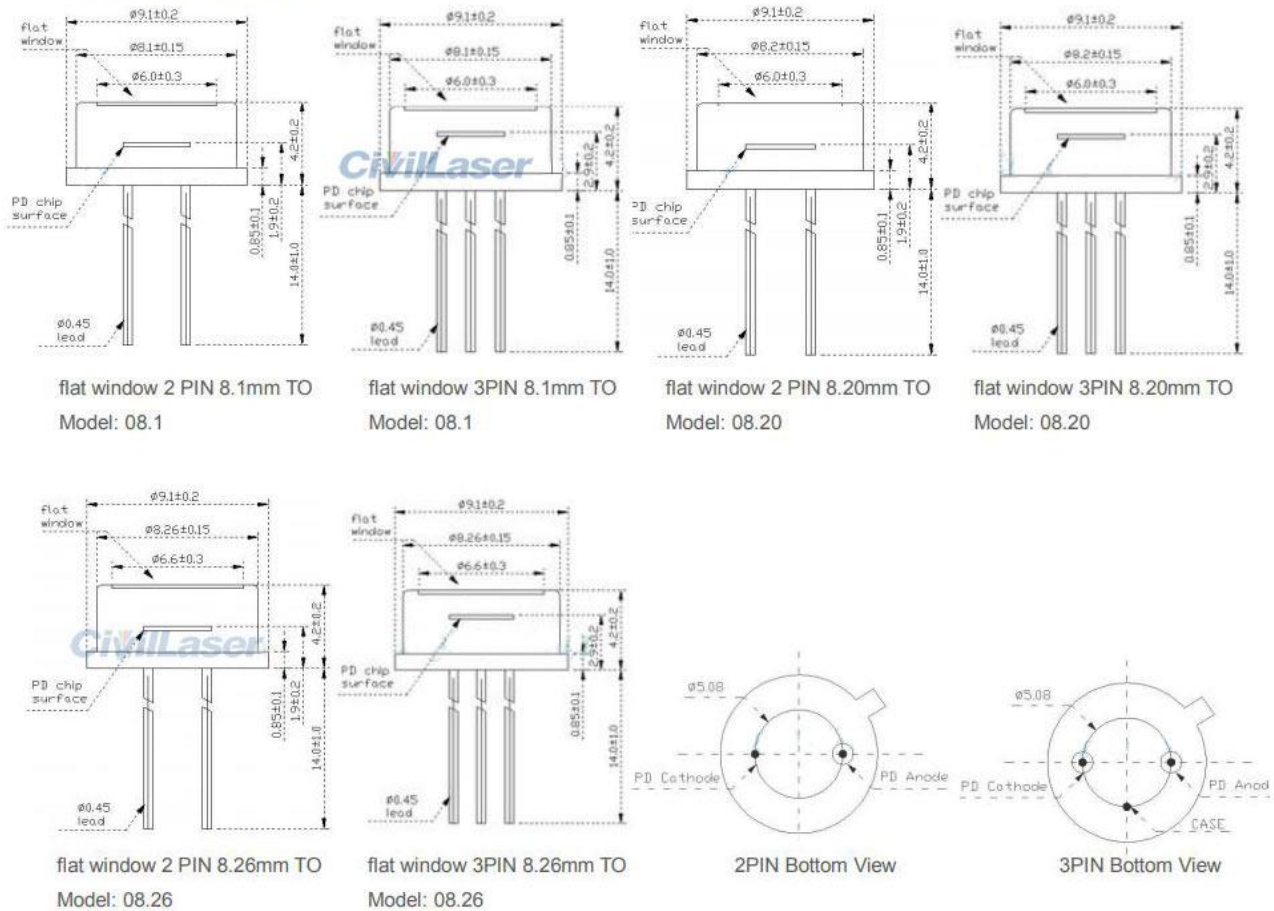
Saturated Optical Power	$P_s(V_R = 5V)$	mW	20
Operating voltage	$V_R$	V	0-15
Shunt resistance	$R_{sh}(V_R = 10mV)$	$G\Omega$	20
package	Hermetic TO5 Can or with receptacle		

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

### The typical Responsivity curve



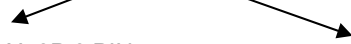
### TO package and Lead



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

## Order information

LSSPD-1.2-X-X



X=2P 2 PIN out

X=3P 3 PIN out

X=0	TO-46 Can with 2mm Flat window cap
X=03	TO-46 Can with 3mm Flat window cap
X=L0	TO-46 Can with 3.9mm flat window cap
X=L1	TO-46 Can with large ball lens 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. <b>Example, We can provide photodiode with filter</b>

## 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.