# 1.2mm UV Silicon PIN photodiode

Version: 3.1 17-03-01

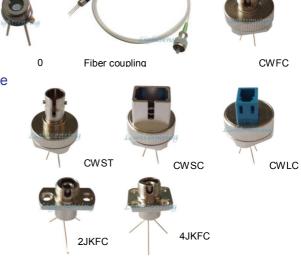
Model: LSSPD-U1.2

#### 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	Тор	-40~+85	$^{\circ}$
Storage temperature	Tstg	-40~+100	${\mathbb C}$
Forward current	l <sub>f</sub>	10	mA
Reverse voltage	V <sub>r</sub>	20	V
Soldering temperature(time)	Ts (10s)	260	$^{\circ}$

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

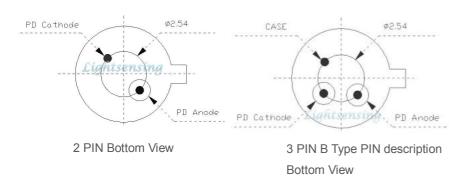
parameter	symbol	unit	Value (typ.)
Active diameter	Ф	mm	1.2x1.2
Spectral range	λ	nm	200-1100
Responsivity	Re(V <sub>R</sub> =0V,λ=200nm)	mA/mW	0.08
	$Re(V_R=0V,\lambda=405nm)$	mA/mW	0.28
	Re(V <sub>R</sub> =0V,λ=650nm)	mA/mW	0.43
	$Re(V_R=0V,\lambda=905nm)$	mA/mW	0.55
	Re(V <sub>R</sub> =0V,λ=1064nm)	mA/mW	0.22
Response time	Tr ( $R_L$ =50 $\Omega$ , $V_R$ =5 $V$ )	ns	8
Dark current	Id(V <sub>R</sub> =0V)	pA	0.2
	Id(V <sub>R</sub> =5V)	pA	100
Reverse Breakdown voltage	VBR (IR=10uA)	V	40
Junction capacitance	Cj (f=1MHz, V <sub>R</sub> =0V)	pF	190
	Cj (f=1MHz, V <sub>R</sub> =5V)	pF	40
Saturated Optical Power	Ps(V <sub>R</sub> =5V)	mW	15
Operating voltage	V <sub>R</sub>	٧	0-15
Shunt resistance	Rsh (VR=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.

# The typical Responsivity curve 0.5 Responsivity(mA/mW) 0.3 Responsivity(mA/mW) 1000 Wavelengt/nm **TO package and Lead** flat window flat window flat window lot window Ø4.7+0.05 3.0±0.3 PD chip surface PD chip surface PD chip PD chip surface, Ø0.45 Ø0.45 lead Ø0.45 2mm Flat UV window 2PIN TO 2mm Flat UV window 3PIN TO 3mm Flat UV window 2PIN TO 3mm Flat UV window 3PIN TO

Model: 03

Model: 03



Model: 0

Model: 0

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

### **Order information**

LSSPD-U1.2-X-X

X=2P 2 PIN out X=0 TO-46 Can with 2mm UV window cap X=3P 3 PIN out 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
 X=CWSC
 TO-46 Can with replaceable receptacle with SC connector
 X=CWLC
 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.