

0.2mm Silicon PIN photodiode

Model: LSSPD-0.2

V4.2SWPD-010 22-01-01

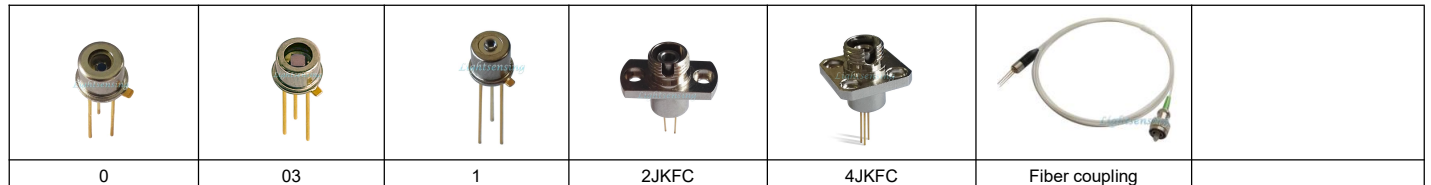
1.Features

- High reliability, Ultra low dark current
- 400-1100nm spectral range
- Active diameter 0.2mm
- Fast rise time up to 0.3ns
- Hermetic TO46 Can or with receptacle or with fiber coupling

2.Applications

- Optical sensor
- High speed light pulse test
- Laser finding range and laser lidar
- Industrial automatic control
- Space light detect equipment

3.Picture



4.The absolute values

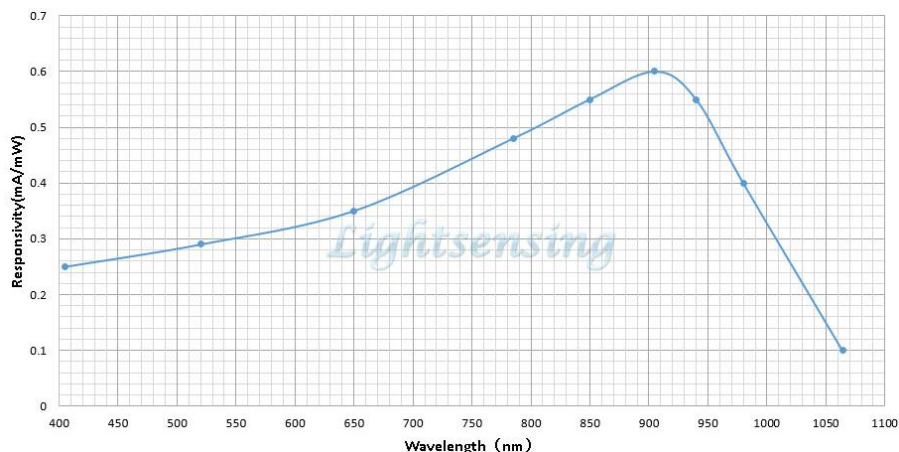
parameter	symbol	value	unit
Operating temperature	Top	-40~+85	℃
Storage temperature	Tstg	-40~+100	℃
Reverse voltage	Vr	15	V
Soldering temperature(time)	Ts(10s)	260	℃

5.The opto-electronic characteristics (T=22±3℃)

parameter	symbol	unit	Value (typ.)
Active diameter	Φ	mm	0.2
Spectral range	λ	nm	400-1100
Responsivity	Re(Vr=5V, λ =405nm)	mA/mW	0.1
	Re(Vr=5V, λ =650nm)	mA/mW	0.35
	Re(Vr=5V, λ =940nm)	mA/mW	0.55
	Re(Vr=5V, λ =1064nm)	mA/mW	0.10
Response time	Tr (RL=50 Ω , Vr=5V)	ns	0.3
Dark current	Id(Vr=0V)	pA	0.1
	Id(Vr=5V)	pA	100
Reverse Breakdown voltage	VBR (Id=10uA)	V	60
Total capacitance	Cj (f=1MHz, Vr=0V)	pF	20
	Cj (f=1MHz, Vr=5V)	pF	1.0
Saturated Optical Power	Ps(Vr=0V)	mW	1
	Ps(Vr=5V)	mW	10
Reverse operating voltage	Vr	V	0-10
Shunt resistance	Rsh (Vr=10mV)	G Ω	100
Package	Hermetic TO46 Can or with receptacle or with fiber coupling		

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

The typical Responsivity curve



6. The package Dimensions and Lead

Flat window: $\phi 5.4 \pm 0.1$, $\phi 4.7 \pm 0.1$ PD chip surface: $\phi 5.4 \pm 0.1$, $\phi 4.7 \pm 0.1$ Lead: $\phi 0.45$, 14.0 ± 1.0, 3.7 ± 0.2	Flat window: $\phi 5.4 \pm 0.2$, $\phi 4.7 \pm 0.1$, $\phi 3.0 \pm 0.3$ PD chip surface: $\phi 5.4 \pm 0.2$, $\phi 4.7 \pm 0.1$, $\phi 3.0 \pm 0.3$ Lead: $\phi 0.45$, 14.0 ± 1.0, 3.7 ± 0.2	Ball lens window: $\phi 5.4 \pm 0.1$, $\phi 4.7 \pm 0.1$, $\phi 1.5 \pm 0.03$ PD chip surface: $\phi 5.4 \pm 0.1$, $\phi 4.7 \pm 0.1$, $\phi 1.5 \pm 0.03$ Lead: $\phi 0.45$, 14.0 ± 1.0, 3.7 ± 0.2	Case: $\phi 2.54$ PD Cathode, PD Anode	Case: $\phi 2.54$ PD Cathode, PD Anode, 45°
0	03	1	Type B PIN Bottom View	Type C PIN Bottom View

Note: For more information on dimension, please contact us

7. Order information

TO46 Can product order information:LS=Lightensing				
LS	SPD	-0.2	-B	-1
	PD type	Active diameter	PIN	Cap type
	SPD= Si PD	0.2=0.2mm	B=Type B PIN C=Type C PIN Other	0=2mm flat window nickel-plated cap 03=3mm Flat window nickel-plated cap 1=ball lens nickel-plated cap Other

Receptacle product order information:LS=Lightensing				
LS	SPD	-0.2	-B	-2JKFC
	PD type	Active diameter	PIN	Receptacle type
	SPD= Si PD	0.2=0.2mm	B=Type B PIN C=Type C PIN Other	2JKFC=receptacle with FC connector and 2 mounting holes 4JKFC=receptacle with FC connector and 4 mounting holes Other

Fiber coupling product order information: LS=Lightensing; Def=Default;								
LS	SPD	-0.2	-B	-SM	FA	-	-	-
	PD type	Active diameter	PIN	Fiber type	Fiber connector	Fiber tube	Fiber length	
	SPD= Si PD	0.2=0.2mm	B=Type B PIN C=Type C PIN Other	SM=9um SM 5MM=50um MM 6MM=62.5um MM 10MM=105um MM Other	FA=FC/APC FP=FC/PC SA=SC/APC SP=SC/PC Other	Def=0.9mm tight S=0.9mm Loose Other	Def=1 meter 0.3m=0.3 meter 0.5m=0.5 meter Other	

8. The cautions!

- 1: The above product specifications are subject to change without notice.
- 2: The suitable ESD protecting measures are recommend in storage, transporting 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.

