

0.5mm Fast Silicon PIN photodiode

Version: 3.1 17-03-01

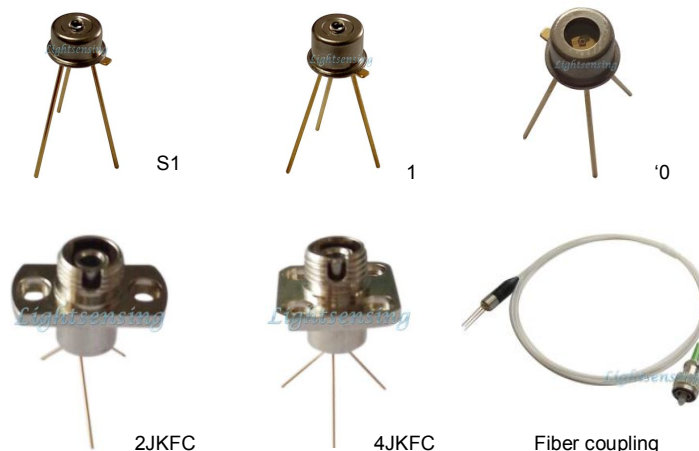
Model: LSSPD-0.5

Features:

- High reliability, Ultra low dark current
- 400-1100nm spectral range
- Active diameter 0.5x0.5mm
- Very fast rise time up to 250ps
- Hermetic TO46 Can or with receptacle or with fiber coupling

Applications:

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



Absolute maximum ratings:

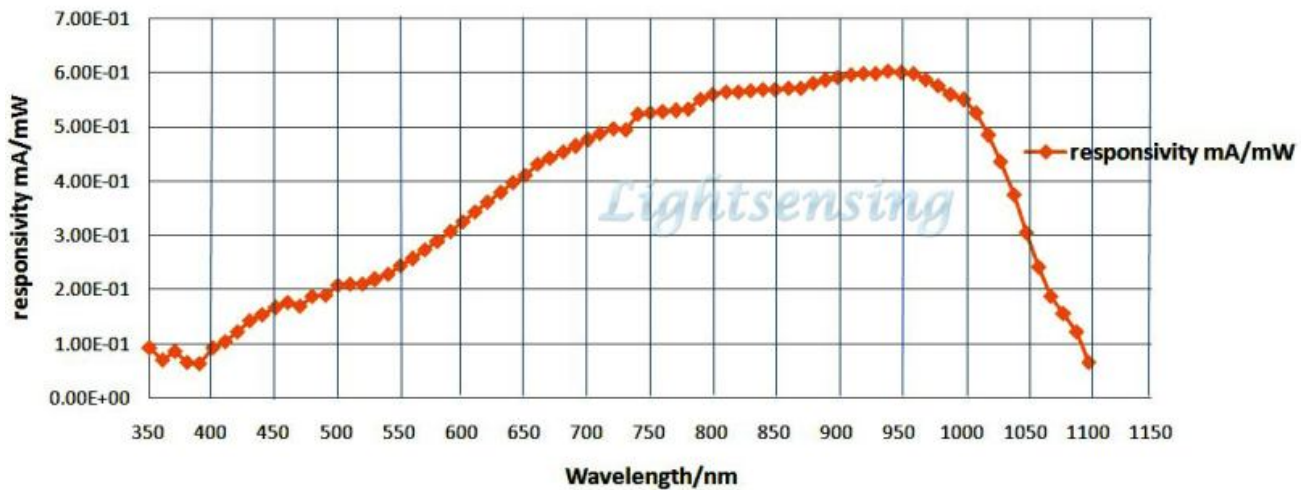
parameter	symbol	value	unit
Operating temperature	Top	-40~+85	℃
Storage temperature	Tstg	-40~+100	℃
Forward current	I _f	5	mA
Reverse voltage	V _r	30	V
Soldering temperature(time)	Ts (10s)	260	℃

Electrical and optical characteristics:(T=25℃)

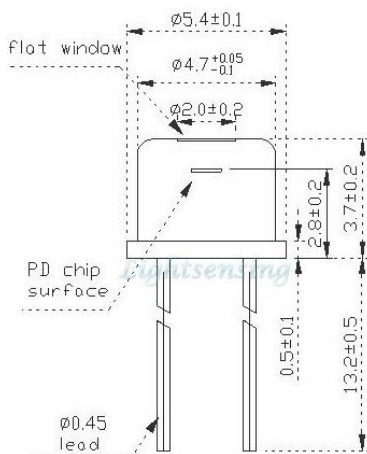
parameter	symbol	unit	Value (typ.)
Active diameter	Φ	mm	0.5x0.5
Spectral range	λ	nm	400-1100
Responsivity	Re(V _R =5V,λ=405nm)	mA/mW	0.1
	Re(V _R =5V,λ=650nm)	mA/mW	0.35
	Re(V _R =5V,λ=850nm)	mA/mW	0.45
	Re(V _R =5V,λ=1064nm)	mA/mW	0.20
Response time	T _r (R _L =50Ω, V _R =5V)	ps	250
Dark current	I _d (V _R =0V)	pA	0.1
	I _d (V _R =5V)	pA	50
Reverse Breakdown voltage	V _{BR} (I _R =10uA)	V	120
Junction capacitance	C _j (f=1MHz, V _R =0V)	pF	15
	C _j (f=1MHz, V _R =5V)	pF	1.5
Saturated Optical Power	Ps(V _R =5V)	mW	7
Operating voltage	V _R	V	0-20
Shunt resistance	R _{sh} (V _R =10mV)	GΩ	100
package	Hermetic TO46 Can or with receptacle or with fiber coupling		

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

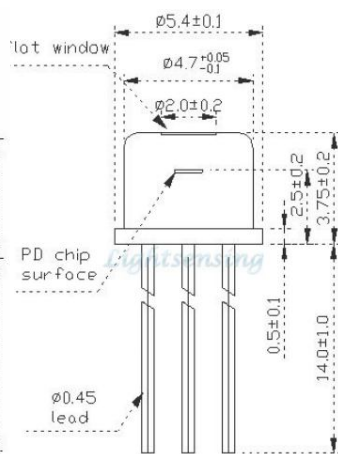
The typical Responsivity curve



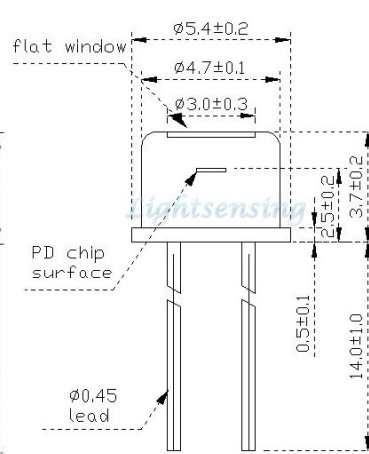
TO package and Lead



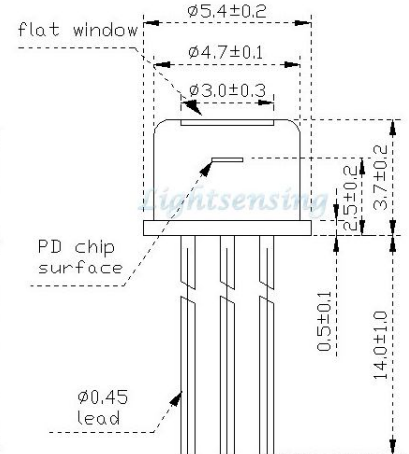
2mm Flat window 2PIN TO
Model: 0



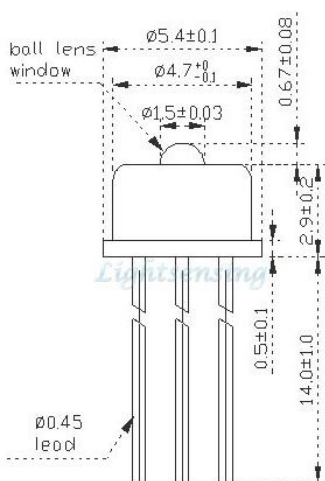
2mm Flat window 3PIN TO
Model: 0



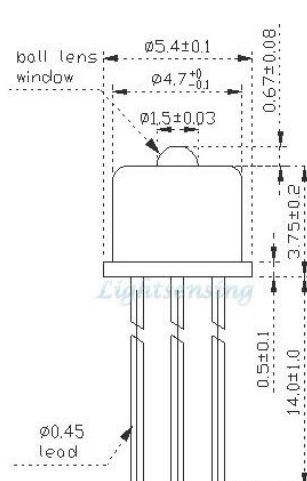
3mm Flat window 2PIN TO
Model: 03



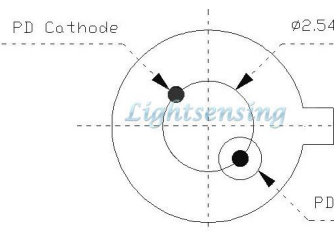
3mm Flat window 3PIN TO
Model: 03



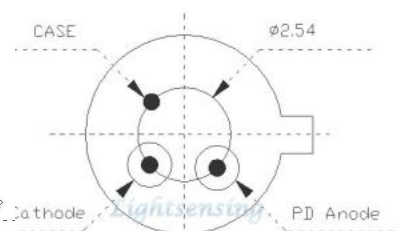
Short ball lens cap 3PIN TO
Model: S1



Standard ball lens cap 3PIN TO
Model: 1



2 PIN Bottom View



3 PIN B Type PIN description
Bottom View

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

Order information

LSSPD-0.5-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=S1

TO-46 Can with short ball lens cap

X=1

TO-46 Can with standard 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=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.