# 400-1700nm Fast InGaAs PIN photodiode

Model: LSIPD-0.1S

Features:

● High reliability, low dark current
● Active diameter 0.1mm,
● -3dB Bandwidth up to 1GHz
● 400-1700nm wide wavelength range
● Hermetic package TO46 Can or with receptacle or fiber coupling

0   1   Fiber coupling

Applications:

● Optical sensor, Temperature sensing, Covert IR sensing
● Medical and Chemical analysis, Spectrography
● Light Detection and ranging, Industrial automatic control
● Science analysis and experiment, Space light detect equipment
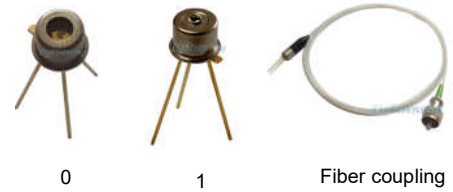
Absolute maximum ratings:

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

Electrical and optical characteristics:(T=25℃)

| parameter	symbol	unit	Value（typ.）
Active diameter	Φ	mm	0.1
Spectral range	λ	nm	400-1700
Responsivity	Re(Vr=0V,λ=405nm)	mA/mW	0.08
	Re(Vr=0V,λ=650nm)	mA/mW	0.25
	Re(Vr=0V,λ=850nm)	mA/mW	0.45
	Re(Vr=0V,λ=1550nm)	mA/mW	0.9
Response time	Tr (R_L=50Ω,Vr=5V)	ns	0.25
Band width(-3dB)	BW (R_L=50Ω,Vr=5V)	GHz	1
Dark current	Id(Vr=0V)	pA	2
	Id(Vr=5V)	pA	10
Reverse Breakdown voltage	V_{BR} (Id=10uA)	V	30
Total capacitance	Cj (f=1MHz, Vr=0V)	pF	30
	Cj (f=1MHz, Vr=5V)	pF	2.0
Saturated Optical Power	Ps(Vr=5V)	mW	4
Reverse operating voltage	Vr	V	0-5
Shunt resistance	Rsh (Vr=10mV)	GΩ	5
Package	Hermetic package TO46 Can or with receptacle or fiber coupling		

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

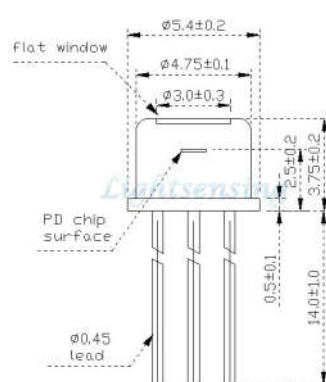**Note:** For more information on dimension, please contact us.
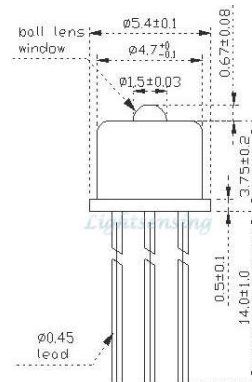
The typical Responsivity curve
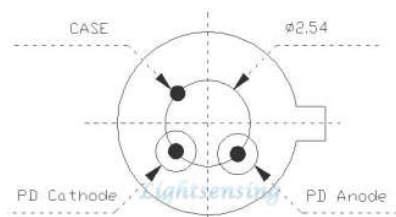
TO package and Lead
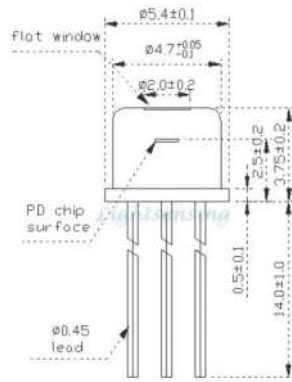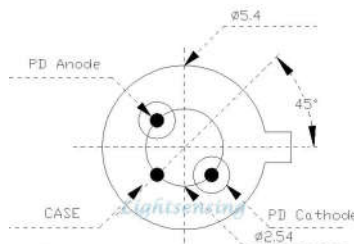

2mm flat window TO
Model: 0

3mm flat window TO
Model: 03

Standard ball lens TO
Model: 1

B Type PIN description
Bottom View

C Type PIN description
Bottom View

Order information

LSIPD-0.1S-X-X-X-X

Fiber length
X= Default   1m
X=0.3m,0.5m or other

B=B Type PIN
C=C Type PIN **(Standard products)**

X=0	TO46 Can with 2mm flat window cap
X=03	TO46 Can with 3mm flat window cap**(Standard products)**
X=1	TO46 Can with ball lens cap
X=SMFA/P	TO46 Can with SM Fiber coupling with FC-APC/FC-PC connector
X=SMSA/P	TO46 Can with SM Fiber coupling with SC-APC/SC-PCconnector
X=5MMFA/P	TO46 Can with 50um MM Fiber coupling with FC-APC/FC-PC connector
X=6MMFA/P	TO46 Can with 62.5um MM Fiber coupling with FC-APC/FC-PC connector
X=2JKFC	TO46 Can with fixed receptacle with FC connector and 2 mounting holes
X=4JKFC	TO46 Can with fixed receptacle with FC connector and 4 mounting holes
X=Other	By customer's request

Tube
X= Default   0.9mm tight tube
X=S   0.9mm Loose tube

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.