

40um 6GHz Analog InGaAs PIN photodiode

Model: LSIPD-A40

V4.2HIPD-001 2022-01-01

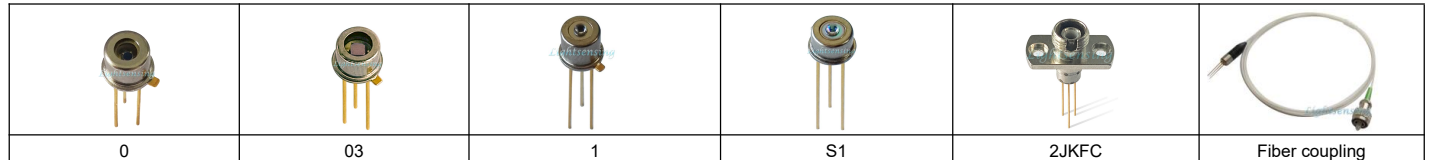
1.Features

- High reliability, low dark current
- Top illumination Planar PIN PD
- 800-1700nm spectral range
- Active diameter 40um, -3dB Bandwidth up to 6GHz
- Hermetic TO46 Can or with receptacle or fiber coupling

2.Applications

- Ultra Weak optical signal detecting
- Analog CATV, Fiber communication
- Fast optical pulse testing
- OTDR, Optical fiber sensor
- Industrial automatic control

3.Picture



4.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	℃

5.Electrical and optical characteristics:(T=25℃)

parameter	symbol	unit	Value (typ.)
Spectral range	λ	nm	800-1700
Active diameter	ϕ	um	40
Responsivity for fiber coupling	Re(Vr=0V, λ =1310nm)	mA/mW	0.80
	Re(Vr=0V, λ =1550nm)	mA/mW	0.85
Responsivity for receptacle and SM fiber	Re(Vr=0V, λ =1310nm)	mA/mW	0.75
	Re(Vr=0V, λ =1550nm)	mA/mW	0.80
Response time	Tr (RL=50Ω, Vr=5V)	ps	60
Band width(-3dB)	BW(RL=50Ω, Vr=5V)	GHz	6
Dark current	Id(Vr=0V)	pA	0.3
	Id(Vr=5V)	pA	20
Reverse Breakdown voltage	VBR (Id=10uA)	V	40
Total capacitance	Cj (f=1MHz, Vr=0V)	pF	100
	Cj (f=1MHz, Vr=5V)	pF	0.4
Saturated Optical Power	Ps(Vr=5V)	mW	5
2nd Order Inter-modulation distortion	CSO(Two tones, RL=50Ω, 1mW, VR=5V)	dBc	-75
Reverse operating voltage	Vr	V	0-5
Shunt resistance	Rsh (Vr=10mV)	GΩ	30
package	Hermetic TO46 Can or with receptacle or fiber coupling		

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

The typical Responsivity curve



6. The package Dimensions and Lead

0	03	1	S1
Type B PIN Bottom View	5 PIN Bottom View		

Note: For more information on dimension, please contact us

7. Order information

TO46 Can product order information: LS= Lightsensing

LS	IPD	-A40	-B	-S1A
	PD type	Active Area	PIN	Cap type
	IPD= InGaAs PD	40=40um	B=Type B PIN 5P=5 PIN	0=2mm flat window nickel-plated cap 0A=2mm flat window nickel-plated cap and Antireflection Coatings 03=3mm Flat window nickel-plated cap 03A=3mm flat window nickel-plated cap and Antireflection Coatings 1=ball lens nickel-plated cap 1A=ball lens nickel-plated cap and Antireflection Coatings S1=short ball lens nickel-plated cap S1A=short ball lens nickel-plated cap and Antireflection Coatings Other

Receptacle product order information: LS= Lightsensing

LS	IPD	-A40	-B	-2JKFC
	PD type	Active Area	PIN	Receptacle type
	IPD= InGaAs PD	40=40um	B=Type B PIN 5P=5 PIN	2JKFC=receptacle with FC connector and 2 mounting holes Other

Fiber coupling product order information: LS= Lightsensing; Def=Default;

LS	IPD	-A40	-B	-SM	FA	-	-	-
	PD type	Active Area	PIN	Fiber type	Fiber connector	Fiber tube	Fiber length	
	IPD= InGaAs PD	40=40um	B=Type B PIN 5P=5 PIN	SM=9um SM 5MM=50um MM 6MM=62.5um 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

