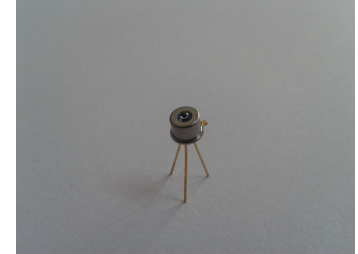


## 6GHZ Analog InGaAs PIN Photodiode

Model: LSIPD-A40

### Features:

- High reliability, low dark current
- Top illumination planar PIN PD
- -3dBm Bandwidth 6GHZ
- To-46 with ball lens cap



### Applications:

- Industrial automatic control
- Science analysis and experiment
- Analog CATV
- Fiber communication
- Fast optical pulse testing
- OTDR
- Optical fiber sensor



### Absolute maximum ratings:

parameter	symbol	value	unit
Operating temperature	Top	-40~+85	°C
Storage temperature	Tstg	-40~+100	°C
Forward current	I <sub>f</sub>	10	mA
Reverse voltage	V <sub>r</sub>	30	V
Reverse current	I <sub>r</sub>	1	mA
Soldering temperature(time)	T <sub>s</sub> (10s)	260	°C

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

parameter	symbol	unit	Value (typ.)
Spectral range	$\lambda$	nm	800-1700
Responsivity	Re (V <sub>R</sub> =5V, $\lambda$ =1310nm )	mA/mW	0.85
	Re(V <sub>R</sub> =5V, $\lambda$ =1550nm)	mA/mW	0.90
Response time	Tr (R <sub>L</sub> =50 $\Omega$ , V <sub>R</sub> =5V)	ps	70
-3dBm Bandwidth	BW (R <sub>L</sub> =50 $\Omega$ , V <sub>R</sub> =5V,lead length=5mm)	GHz	>6
Dark current	I <sub>D</sub> (V <sub>R</sub> =5V)	nA	0.3
2nd Order Inter-modulation distortion	IMD2 (f <sub>1</sub> =400MHz, P <sub>1</sub> =-3dBm; f <sub>2</sub> =450.25MHz, P <sub>2</sub> =-3dBm; MI=40%.P <sub>avg</sub> =0dBm.Rload=50 $\Omega$ IMD2:f <sub>1</sub> +f <sub>2</sub> =850.25 MHz.VR=12V)	dBc	-70

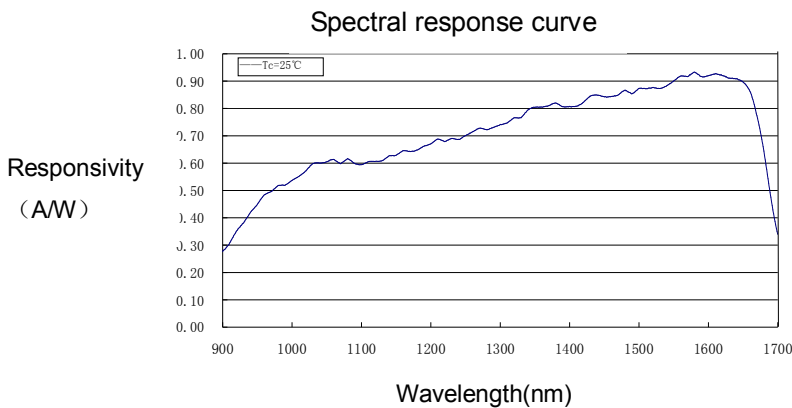
地址: 北京市海淀区苏州街12号西屋国际A座1104 邮编: 100080

Address: Building A Rm 1104, Westing house, No 12 Suzhou Street, Haidian District, Beijing 100080, China.

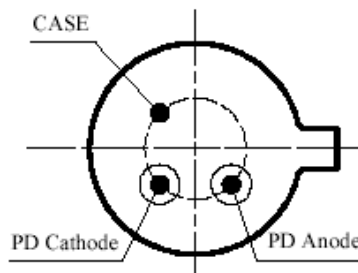
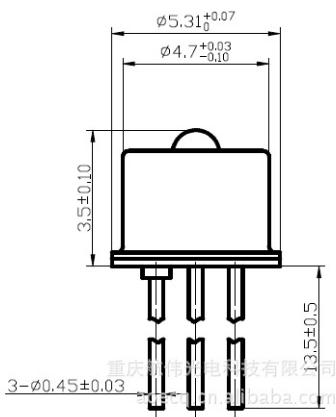
TEL: +86-010-53691988 FAX: +86-010-62557230 Email: [info@lightsensing.com](mailto:info@lightsensing.com) Website: [www.lightsensing.com](http://www.lightsensing.com)

3rd Order Inter-modulation distortion	IMD3 (f1=400MHz, P1=-3dBm; f2=450.25MHz, P2=-3dBm; MI=40%.Pavg=0dBm.Rload=50Ω IMD3: 2f2- f1=500.5MHz.VR=12V)	dBc	-80
Reverse Breakdown voltage	$V_{BR}$ ( $I_R=10\mu A$ )	V	30
Junction capacitance	$C_j$ (f=1MHz, $V_R=5V$ )	pF	0.3
Saturated Optical Power	$P_s(V_R=5V)$	mW	2
Operating voltage	$V_R$	v	0-15
package	TO-46		

### The typical Responsivity curve



### The package and Lead



Bottom view

**Order information**

LSIPD-A40-X



X=0	TO-46 Can with ball lens cap
X=SMFP	SM Fiber coupling with FC-PC connector
X=SMFA	SM Fiber coupling with FC-APC connector
X=SMSA	SM Fiber coupling with SC-APC connector
X=5MMFA	50um MM Fiber coupling with FC-APC connector
X=6MMFA	62.5um MM Fiber coupling with FC-APC connector
X=JKFC	TO-46 Can with FC receptacle
X=Other	By customer's request

**The cautions**

1: The suitable ESD protection is required in storage, transportation and using

2: 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.