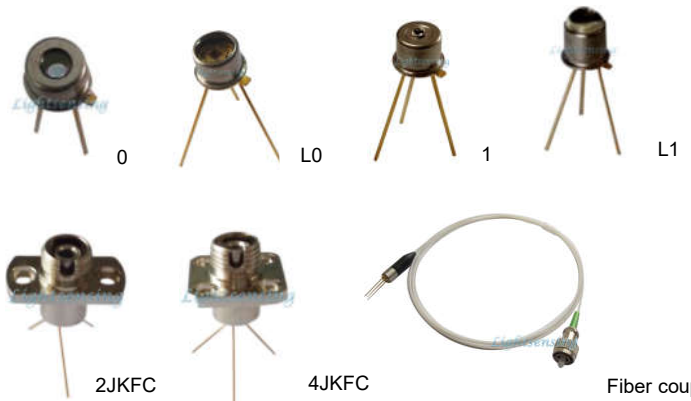


## 0.5mm InGaAs PIN photodiode M0.5 for methane

V4.1LIPD-004B 20-10-01

**Model: LSIPD-M0.5**
**Features:**

- High reliability, low dark current
- 800-1740nm spectral range
- High responsivity at 1650nm in low Temp.
- Active diameter 0.5mm
- Hermetic TO46 Can or with receptacle or fiber coupling


**Applications:**

- Gas sensor for methane
- Optical sensor
- Optical power meter
- Science analysis and experiment
- Response spectrum testing

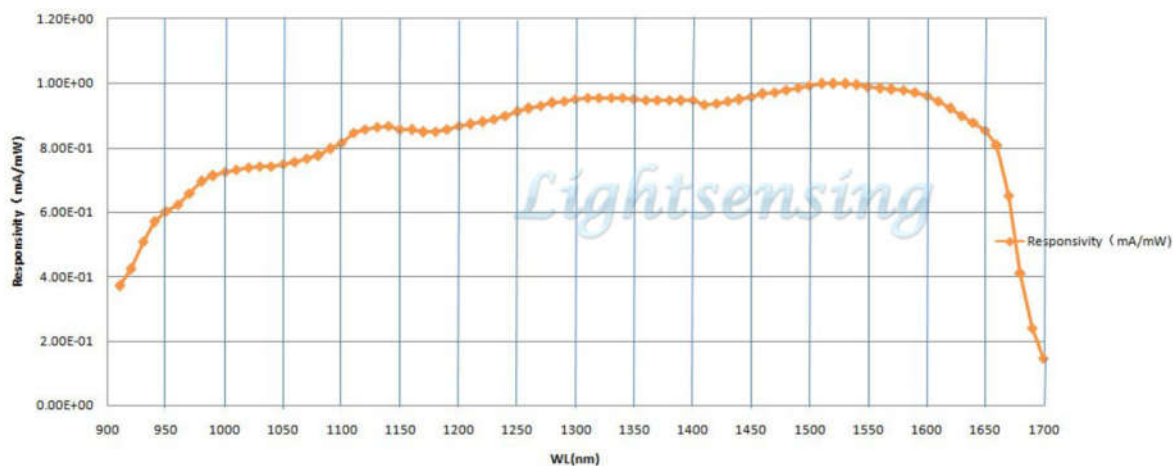
**Absolute maximum ratings:**

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

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

parameter	symbol	unit	Value typ.
Active diameter	$\Phi$	um	500
Spectral range	$\lambda$	nm	800-1740
Responsivity	Re(Vr=0V, $\lambda$ =1310nm)	mA/mW	0.95
	Re(Vr=0V, $\lambda$ =1550nm)	mA/mW	1.0
	Re(Vr=0V, $\lambda$ =1650nm,)	mA/mW	0.90
	Re(Vr=0V, $\lambda$ =1650nm, -30°C)	mA/mW	0.65
Response time	Tr (RL=50 $\Omega$ , Vr=5V)	ns	3
Dark current	Id(Vr=0V)	nA	0.05
	Id(Vr=5V)	nA	0.5
Reverse Breakdown voltage	VBR (Id=10uA)	V	30
Total capacitance	Cj (f=1MHz, Vr=0V)	pF	1500
	Cj (f=1MHz, Vr=5V)	pF	15
Saturated Optical Power	Ps(Vr=5V)	mW	8
Reverse operating voltage	Vr	V	0-5
Shunt resistance	Rsh (Vr=10mV)	M $\Omega$	200
package	Hermetic TO46 Can or with receptacle or with fiber coupling		

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

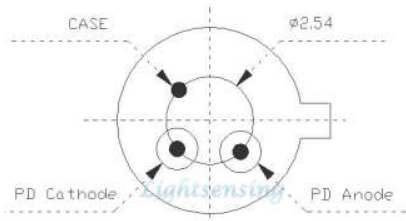
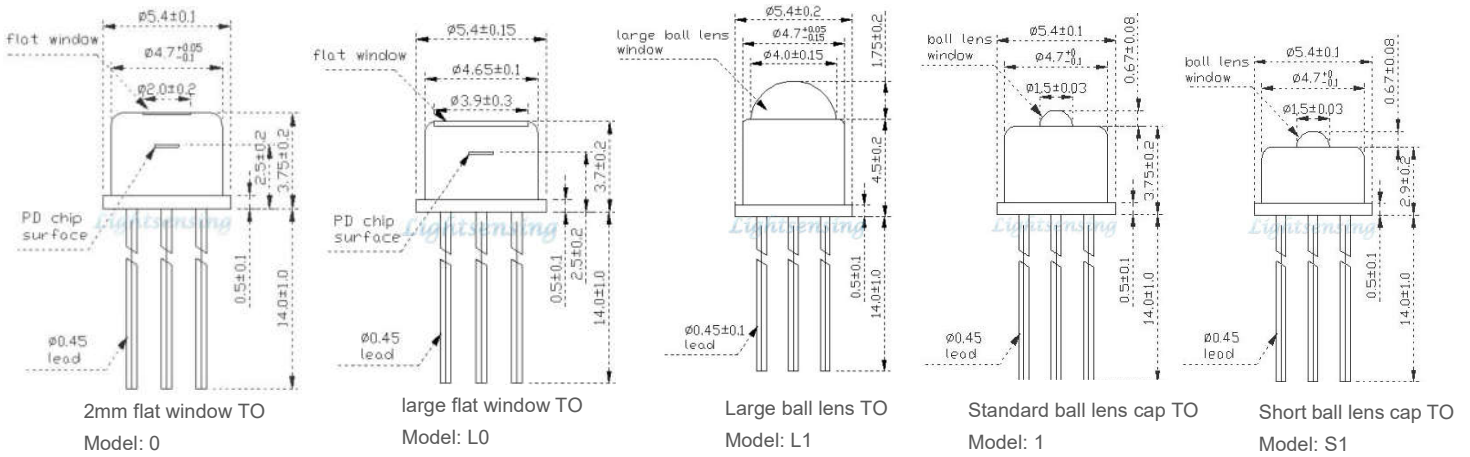
**The typical Responsivity curve**


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TO package and Lead



Type B PIN description  
Bottom View

**Note:** For more information on dimension, please contact us.

**Order information**

LSIPD-M0.5-X-X-X-X

X=B Type B PIN description  
X=other By customer's request

- X=0 TO46 Can with 2mm flat window cap (**Standard products**)
- X=0A TO46 Can with 2mm flat window cap and Antireflection Coatings
- X=L0 TO46 Can with 3.9mm flat window cap (**Standard products**)
- X=L0A TO46 Can with 3.9mm flat window cap and Antireflection Coatings
- X=1 TO46 Can with ball lens cap
- X=1A TO46 Can with ball lens cap and Antireflection Coatings
- X=S1 TO46 Can with short ball lens cap
- X=S1A TO46 Can with short ball lens cap and Antireflection Coatings
- X=L1 TO46 Can with large ball lens cap (**Standard products**)
- X=SMFA/P TO46 Can with SM Fiber coupling with FC-APC/FC-PC connector
- X=SMSA TO46 Can with SM Fiber coupling with SC-APC connector
- 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

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

**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.

