# 75um 2.5GHz Analog InGaAs PIN photodiode

V4.1HIPD-003 20-10-01

### Model: LSIPD-A75

### Features:

- High reliability, low dark current
- 800-1700nm spectral range
- -3dB Bandwidth up to 2.5GHz
- HermeticTO46 Can or with receptacle or fiber coupling

#### **Applications:**

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



Fiber coupling 2JKFC

## **Absolute maximum ratings:**

| parameter                   | symbol   | value           | unit       |
|-----------------------------|----------|-----------------|------------|
| Operating temperature       | Тор      | <b>-</b> 40∼+85 | °C         |
| Storage temperature         | Tstg     | -40~+100        | °C         |
| Reverse voltage             | Vr       | 10              | V          |
| Soldering temperature(time) | Ts (10s) | 260             | $^{\circ}$ |

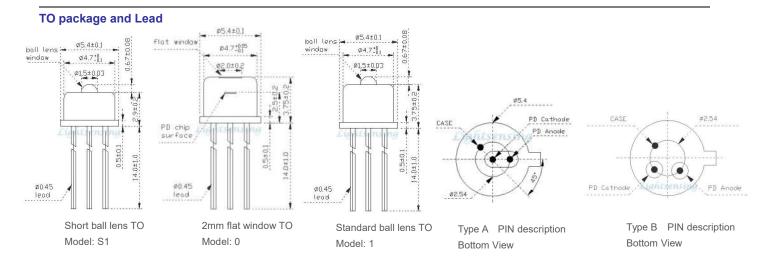
### Electrical and optical characteristics:(T=25°C)

| parameter                             | symbol   | unit  | Value (typ.) |
|---------------------------------------|--|-------|--------------|
| Spectral range                        | λ  | nm    | 800-1700     |
| Active diameter                       | φ  | um    | 75           |
| Responsivity                          | Re(Vr=0V,λ=1310nm)   | mA/mW | 0.85         |
|                                       | Re(Vr=0V,λ=1550nm)   | mA/mW | 0.90         |
| Response time                         | Tr ( $R_L$ =50 $\Omega$ , $V$ r=5 $V$ )                    | ps    | 140          |
| Band width(-3dB)                      | BW (R <sub>L</sub> =50Ω,Vr=5V)                             | GHz   | 2.5          |
| Dark current                          | Id(Vr=0V)  | pA    | 0.2          |
|                                       | Id(Vr=5V)  | pA    | 18           |
| Reverse Breakdown voltage             | V <sub>BR</sub> (Id=10uA)                                  | V     | 40           |
| Total capacitance                     | Cj (f=1MHz, Vr=0V)   | pF    | 400          |
|                                       | Cj (f=1MHz, Vr=5V)   | pF    | 1            |
| Saturated Optical Power               | Ps(Vr=5V)  | mW    | 5            |
| 2nd Order Inter-modulation distortion | CSO(Two tones, R <sub>L</sub> =50Ω,1mW, VR=5V)             | dBc   | -75          |
| Reverse operating voltage             | Vr   | V     | 0-5          |
| Shunt resistance                      | Rsh (Vr=10mV)  | GΩ    | 50           |
| package                               | HermeticTO46 Can or with receptacle or with fiber coupling |       |              |

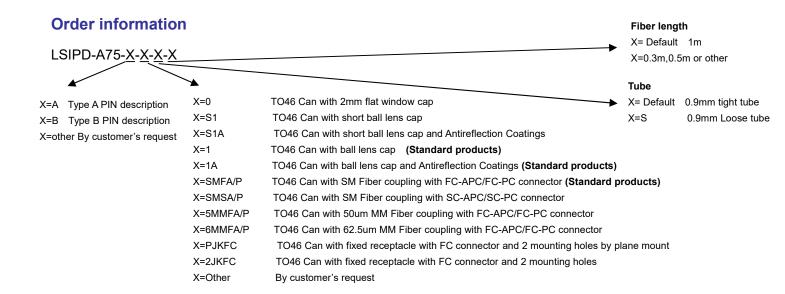
NOTICE: The above product specifications are subject to change without notice.

### The typical Responsivity curve





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



#### 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.