

low dark current 0.5mm InGaAs PIN photodiode

Version: 3.1 17-03-01

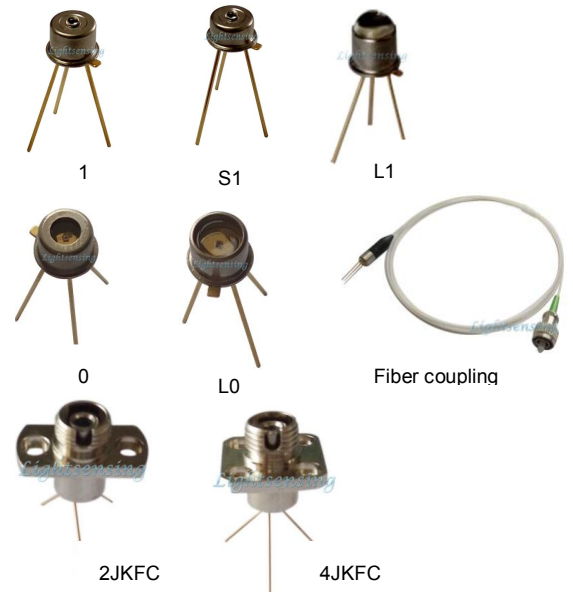
Model: LSIPD-UL0.5

Features:

- High reliability, Ultra low dark current, low capacitance
- 800-1700nm spectral range
- Active diameter 0.5mm
- Hermetic TO46 Can or with receptacle or with fiber coupling

Applications:

- Optical sensor and Optical power meter
- Industrial automatic control
- Science analysis and experiment
- Space light detect equipment
- Response spectrum testing



Absolute maximum ratings:

| parameter | symbol | value | unit |
|-----------------------------|----------------------|----------|------|
| Operating temperature | Top | -40~+85 | °C |
| Storage temperature | Tstg | -40~+100 | °C |
| Forward current | I _f | 8 | mA |
| Reverse voltage | V _r | 20 | V |
| Soldering temperature(time) | T _s (10s) | 260 | °C |

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

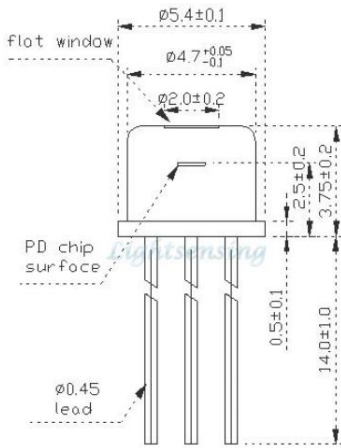
| parameter | symbol | unit | Value (typ.) |
|---------------------------|---|-------|--------------|
| Active diameter | Φ | mm | 0.5 |
| Spectral range | λ | nm | 800-1700 |
| Responsivity | Re(V _R =0V,λ=1310nm) | mA/mW | 0.85 |
| | Re(V _R =0V,λ=1550nm) | mA/mW | 0.90 |
| Response time | T _r (R _L =50Ω, V _R =5V) | ns | 3 |
| Dark current | I _d (V _R =0V) | pA | 3 |
| | I _d (V _R =5V) | pA | 35 |
| Reverse Breakdown voltage | V _{BR} (I _R =10uA) | V | 30 |
| Junction capacitance | C _j (f=1MHz, V _R =0V) | pF | 1000 |
| | C _j (f=1MHz, V _R =5V) | pF | 19 |
| Saturated Optical Power | P _s (V _R =5V) | mW | 6 |
| Operating voltage | V _R | V | 0-10 |
| Shunt resistance | R _{sh} (V _R =10mV) | GΩ | 3 |
| package | Hermetic TO46 Can or with receptacle or with fiber coupling | | |

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

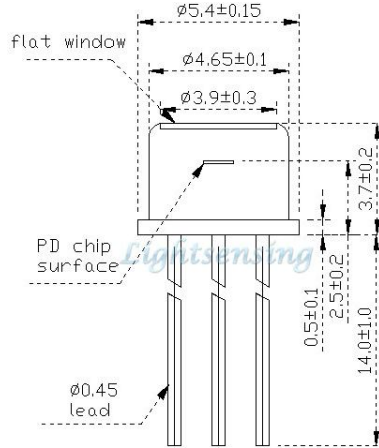
The typical Responsivity curve



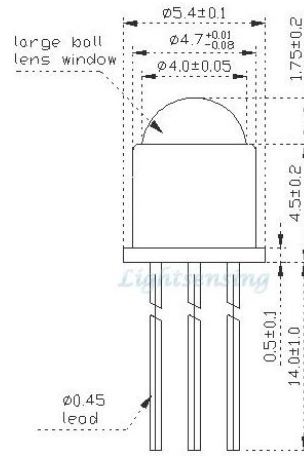
TO package and Lead



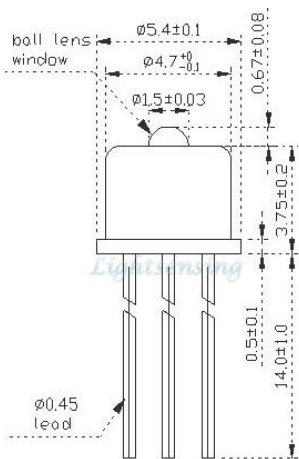
Standard flat window TO
Model: 0



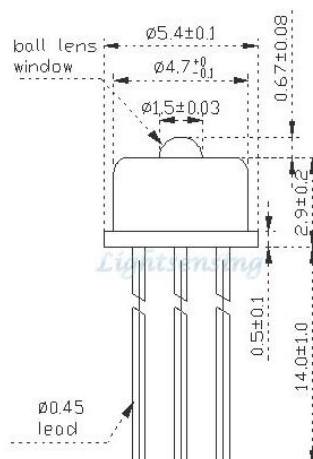
large flat window TO
Model: L0



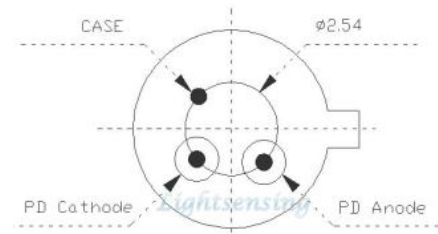
Large ball lens TO
Model: L1



Standard ball lens cap TO
Model: 1



Short ball lens cap TO
Model: S1



Type B PIN description
Bottom View

Note: In order to get other dimensions, please contact us.

Order information

LSIPD-UL0.5-X-X

| | | | |
|---------|------------------------|-----------|---|
| X=B | Type B PIN description | X=0 | TO-46 Can with 2mm flat window cap |
| X=other | By customer's request | X=0A | TO-46 Can with 2mm flat window cap and Antireflection Coatings |
| | | X=L0 | TO-46 Can with 3.9mm flat window cap |
| | | X=1 | TO-46 Can with ball lens cap |
| | | X=1A | TO-46 Can with ball lens cap and Antireflection Coatings |
| | | X=S1 | TO-46 Can with short ball lens cap |
| | | X=S1A | TO-46 Can with short ball lens cap and Antireflection Coatings |
| | | X=L1 | TO-46 Can with large ball lens cap |
| | | X=SMFA/P | TO-46 Can with SM Fiber coupling with FC-APC/FC-PC connector |
| | | X=SMSA | TO-46 Can with SM Fiber coupling with SC-APC connector |
| | | X=5MMFA/P | TO-46 Can with 50um MM Fiber coupling with FC-APC/FC-PC connector |
| | | X=6MMFA/P | TO-46 Can with 62.5um MM Fiber coupling with FC-APC/FC-PC connector |
| | | X=10MMA/P | TO-46 Can with 105um MM Fiber coupling with FC-APC/FC-PC connector |
| | | X=20MMA/P | TO-46 Can with 200um MM Fiber coupling with FC-APC/FC-PC connector |
| | | X=40MMA/P | TO-46 Can with 400um MM Fiber coupling with FC-APC/FC-PC connector |
| | | X=2JKFC | TO-46 Can with fixed receptacle with FC connector and 2 pieces of fix holes |
| | | X=4JKFC | TO-46 Can with fixed receptacle with FC connector and 4 pieces of fix holes |
| | | X=Other | By customer's request |

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.