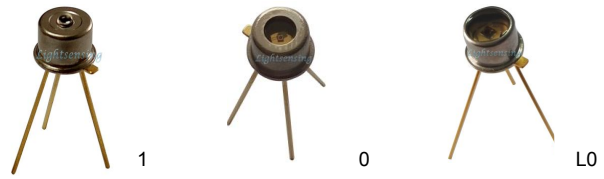


200um InGaAs M=30 Avalanche Photodiode Version: 4.2 17-05-13

Model: LSIAPD-S200

Features:

- High reliability, low dark current
- Top illumination Planar APD
- High Gain up to M=30
- High bandwidth up to 1.25GHZ
- Hermetic TO46 Can or Mini TO Can or with fiber coupling



Applications:

- Ultra Weak optical detecting
- Optical sensor, OTDR
- Laser lidar, laser range finding
- high resolution Optical Coherence Tomography
- Science analysis and experiment



The absolute values

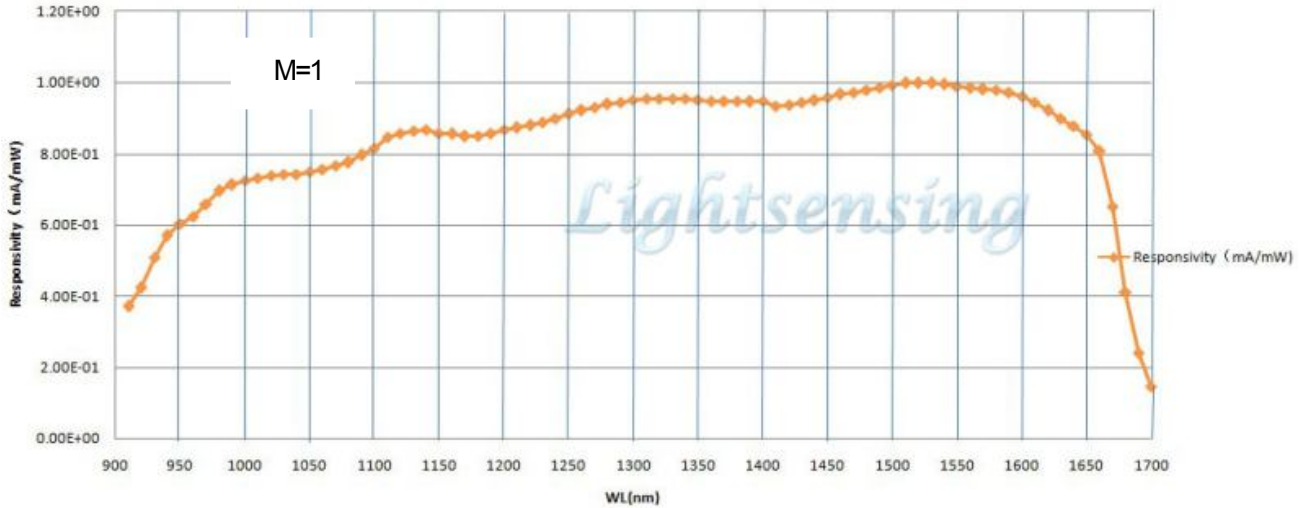
Operating voltage	0.99×V _{BR}	Operating temperature	-40~+85℃	Power dissipation	50mW
Forward current	8mA	storage temperature	-45~+100℃	Soldering temperature(time)	260℃ (10s)

The opto-eletronic characteristics (@Tc=22±3℃)

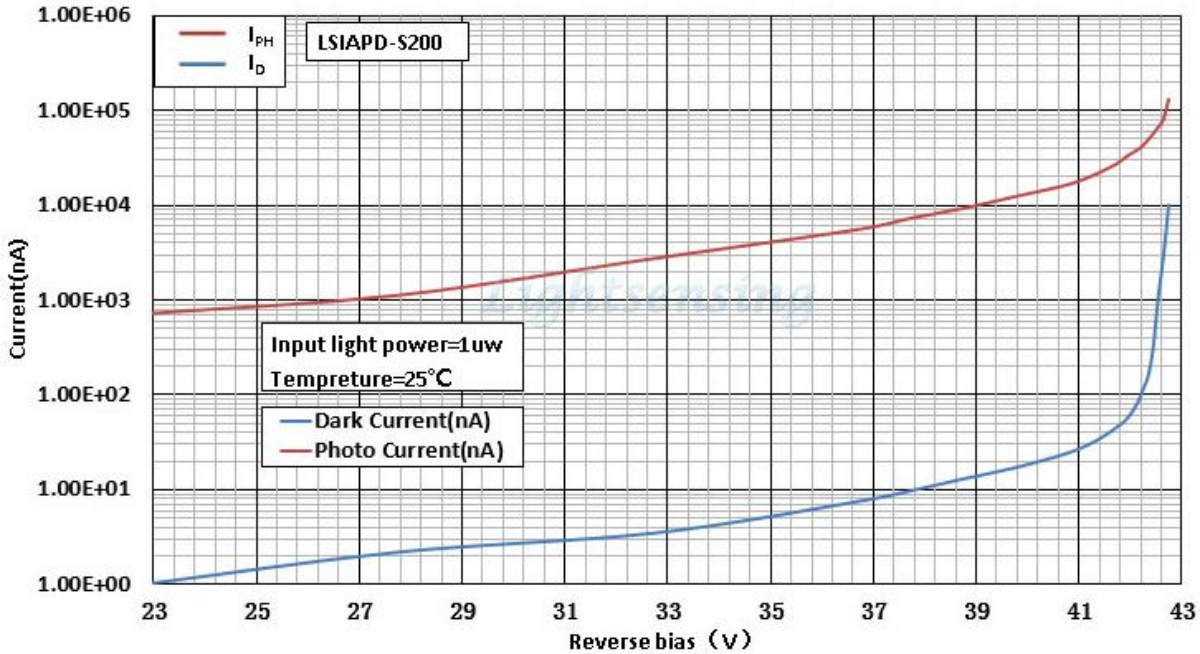
Parameters	Sym.	Test conditions	Min	Typ	Max	Unit
Response Spectrum	λ	—	800~1700			nm
Active diameter	φ	—	200			μm
Responsivity	Re	λ=1.55μm, 1μw, M=1		0.9		A/W
		λ=1.064μm, 1μw, M=1		0.65		A/W
Multiplication gain	M	λ=1.55μm, 1μw, V _{BR} -4V		10		
		λ=1.55μm, 1μw, V _{BR} -2V		20		
		λ=1.55μm, 1μw, V _{BR} -1V		30		
Rise time	Tr	M=10, R _L =50Ω		300		ps
-3dB bandwidth	BW	M=10, R _L =50Ω		1.25		GHz
Dark current	I _D	M=10		10	30	nA
Total capacitance	C _{tot}	M=10		2.4		pF
Reverse breakdown voltage	V _{BR}	I _R =10uA	35	43	55	V
Maximum instantaneous input power	P	M=10,1550nm,10ns,10KHZ			0.6	mW
Operating voltage temperature coefficient	δ	Tc=-40~+85℃		0.11	0.15	V/℃
package	Hermetic TO46 Can or Mini TO Can or with fiber coupling					

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

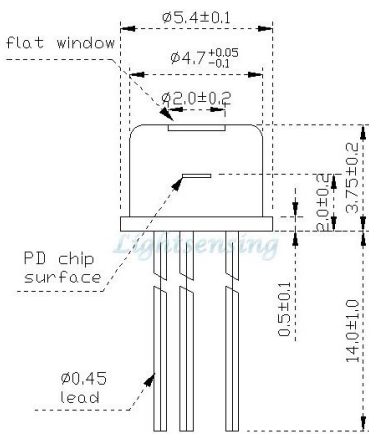
The typical characteristic curve



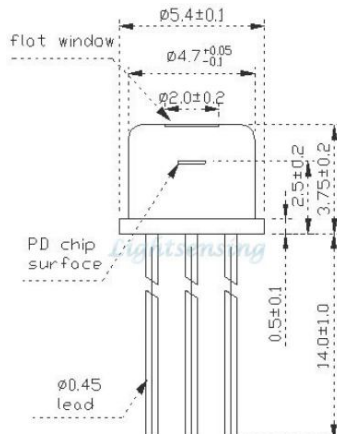
Dark current and photo current vs voltage



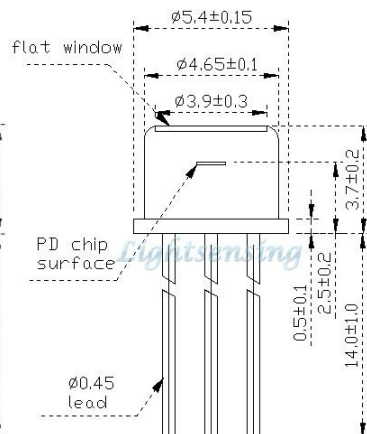
TO 46 package and Lead



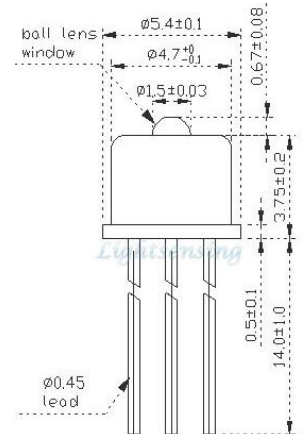
Type A PIN description
2mm flat window TO Model: 0



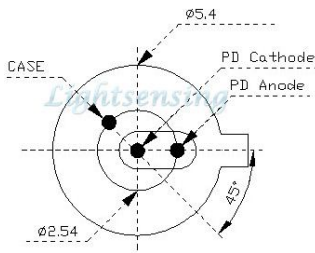
Type B PIN description
2mm flat window TO Model: 0



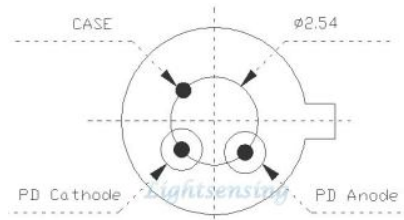
Type B PIN description
Large flat window TO Model: L0



Type B PIN description
ball lens TO Model: 1

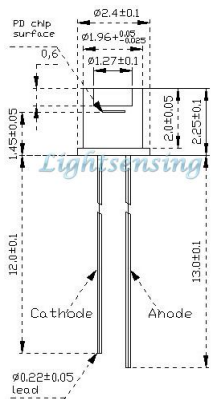


Type A PIN description
Bottom View

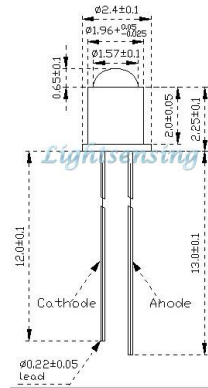


Type B PIN description
Bottom View

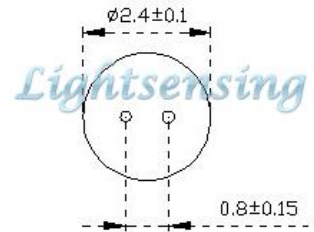
Mini-TO Can package and Lead



flat window Mini TO
Model: M0



ball lens Mini TO
Model: M1



TO46 package Ordering information

LSIAPD-S200-X-X	X=0	TO-46 Can with 2mm flat window cap
	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=A Type A PIN description	X=L0A	TO-46 Can with 3.9mm flat window cap and Antireflection Coatings
X=B Type B PIN description	X=1	TO-46 Can with ball lens cap
	X=1A	TO-46 Can with ball lens cap and Antireflection Coatings
	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=Other	By customer's request

Mini TO package Ordering information

LSIAPD-S200-X	X=M0	Mini TO Can with flat window cap
	X=M1	Mini TO Can with ball lens window cap
	X=M1-SMFA/P	Mini TO Can with SM Fiber coupling with FC-APC/FC-PC connector
	X=M1-6MMFA/P	Mini TO Can with 62.5um MM Fiber coupling with FC-APC/FC-PC connector
	X=M1-10MMFA/P	Mini TO Can with 105um MM Fiber coupling with FC-APC/FC-PC connector
	X=M1-20MMFA/P	Mini TO Can with 200um MM Fiber coupling with FC-APC/FC-PC connector
	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.