10G InGaAs M=30 Avalanche Photodiode Version: sample 18-09-01

Model: LSIAPD-10G

Features:

- High reliability, low dark current
- 800-1700nm wavelength range
- High Gain up to M=30
- High rate up to 10Gbps
- Hermetic TO46 Can or with fiber coupling

0

Fiber coupling

Applications:

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

The absolute values

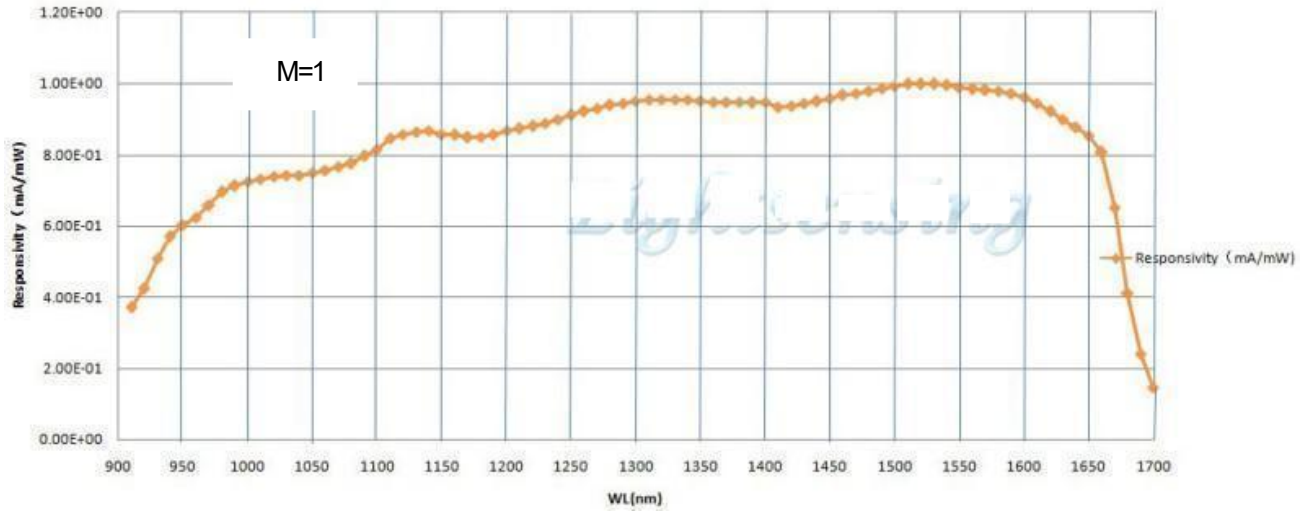
Operating voltage	0.99×V_{BR}	Operating temperature	-40～+85℃	Power dissipation	50mW
Forward current	4mA	storage temperature	-45～+100℃	Soldering temperature(time)	260℃（10s）

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

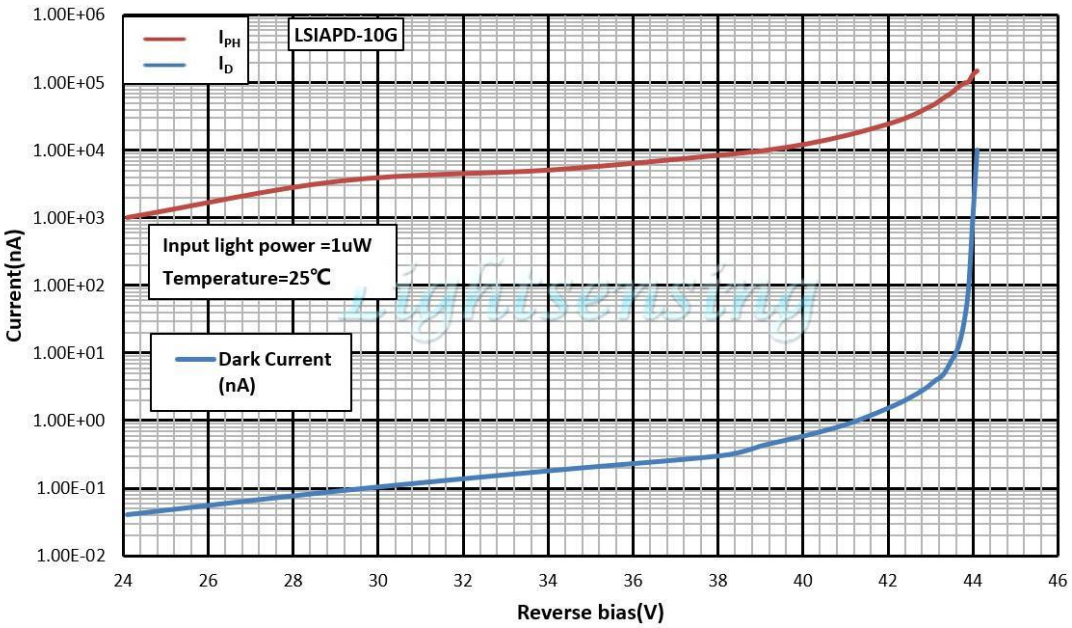
Parameters	Sym.	Test conditions	Min	Typ	Max	Unit
Response Spectrum	λ	—		800～1700		nm
Active diameter	φ	—		30		μm
Responsivity	Re	λ=1.55μm,$φ_e$=1μw, M=1		0.8		A/W
Multiplication gain	M	λ=1.55μm,$φ_e$=1μw, V_{BR}-4V		10		
		λ=1.55μm,$φ_e$=1μw, V_{BR}-2V		20		
		λ=1.55μm,$φ_e$=1μw, V_{BR}-1.2V		30		
Rate	R_B	M=10, R_L=50Ω		10		Gbps
Dark current	I_D	M=10		0.5		nA
Total capacitance	C_{tot}	M=10		0.3		pF
Reverse breakdown voltage	V_{BR}	I_R=10uA	20	28	50	V
Maximum instantaneous input power	P	M=10,1550nm,10ns,10KHZ			100	uW
Operating voltage temperature coefficient	δ	Tc=-40～+85℃		0.11	0.15	V/℃
package	Hermetic TO46 Can or with fiber coupling					

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

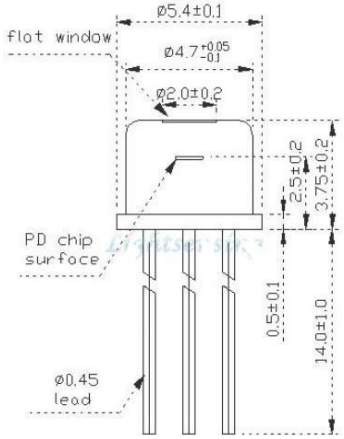
The typical characteristical curve



Dark current and photo current vs voltage

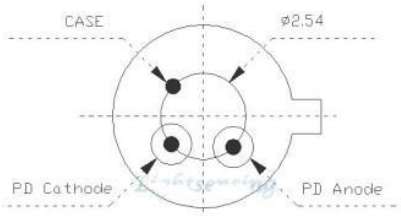


TO package and Lead



2mm flat window TO

Model: 0



Type B PIN description

Bottom View

Ordering information

LSIAPD-10G-X - X

X=B Type B PIN description

X=Other

X=0	TO-46 Can with 2mm flat window cap
X=0A	TO-46 Can with 2mm flat window 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	50um MM Fiber coupling with FC-APC 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.