

1mm InGaAs M=30 Quadrant Avalanche Photodiode

Model: LSIQAPD-1000

Version: 3.1 17-03-01

Features:

- Low noise and high reliability
- 800-1700nm wavelength range
- element gap 100um
- Fast rise time and fall time
- Low crosstalk
- Hermetic TO5 can package



08.26

Applications:

- Beam alignment
- eye-safe Laser guidance、
- Laser positioning and Laser navigation
- Laser range finder
- Beam profiling

The absolute values

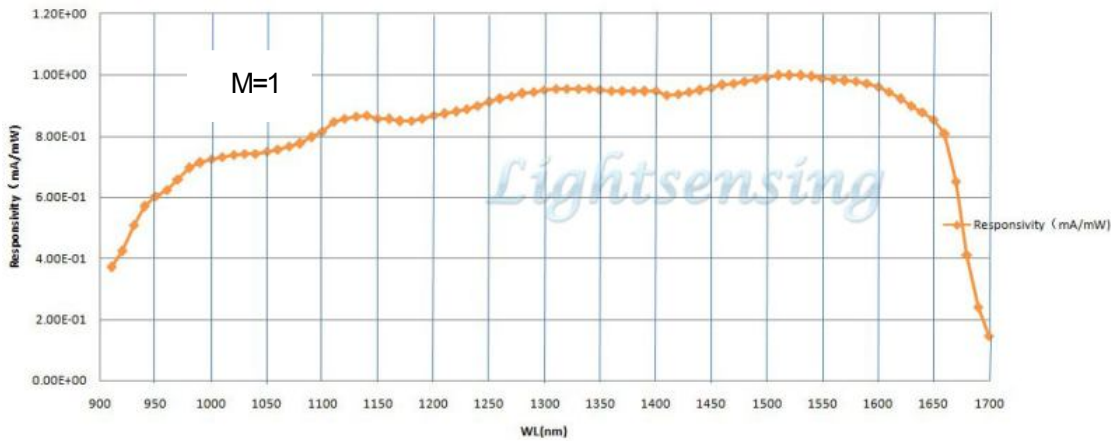
Operating voltage	0.99×VBR	Operating temperature	-40~+85℃	Power dissipation	100mW
Forward current	10mA	storage temperature	-55~+100℃	Soldering temperature(time)	260℃ (10s)

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

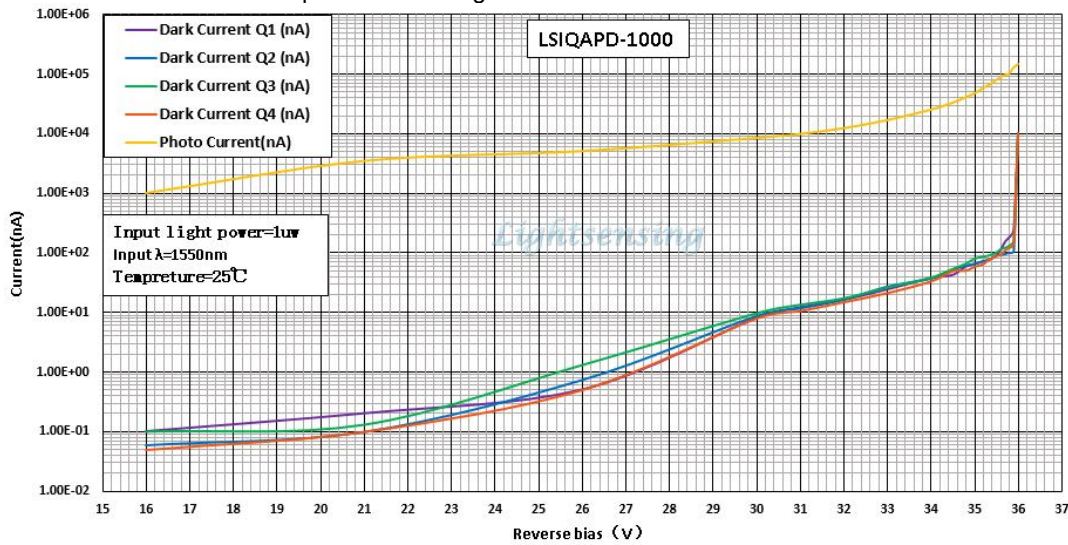
Parameters	Sym.	Test conditions	Min	Typ	Max	Unit
Response Spectrum	λ	—	800~1700			nm
Active diameter	φ	—	1000			μm
Element Gap			100			μm
Responsivity	Re	$\lambda=1.55\mu\text{m}, \varphi_e=1\mu\text{m}, M=1$		0.90		A/W
		$\lambda=1.064\mu\text{m}, 1\mu\text{m}, M=1$		0.65		A/W
Multiplication gain	M	$\lambda=1.55\mu\text{m}, \varphi_e=1\mu\text{m}, \text{VBR}=4\text{V}$		10		
		$\lambda=1.55\mu\text{m}, \varphi_e=1\mu\text{m}, \text{VBR}=2\text{V}$		20		
		$\lambda=1.55\mu\text{m}, \varphi_e=1\mu\text{m}, \text{VBR}=1\text{V}$		30		
Response time	t_s	$f=1\text{MHz}, \text{RL}=50\Omega$		1.3	3.0	ns
Dark current	I_D	$M=10$		40		nA
Crosstalk	SL	$M=10, 1\mu\text{W}, 10\text{MHZ}$		6%		
Total capacitance	C_{tot}	$f=1\text{MHz}, M=10$		9	15	pF
Reverse breakdown voltage	V_{BR}	$I_R=10\mu\text{A}$	30	40	60	V
Maximum instantaneous input power	P	$M=10, 1550\text{nm}, 10\text{ns}, 10\text{KHZ}$			1	mW
Operating voltage temperature coefficient	δ	$T_c=-40\sim+85^\circ\text{C}$		0.10	0.15	V/℃
package	Hermetic TO5 can package with flat window					

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

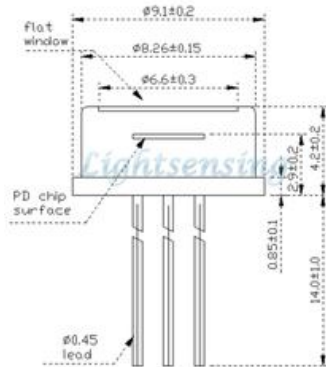
The typical characteristic curve



Dark current and photo current vs voltage

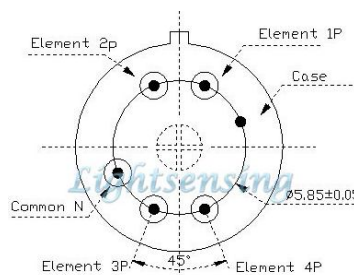


TO package and Lead



flat window 6PIN 8.26mm TO

Model: 08.26



6PIN TO5 Can

Bottom View

Order information

LSIQAPD-1000-X	→ X=08.26	TO-5 Can with flat window $\phi 8.26$ mm nickel cap
	X=08.26A	TO-5 Can with flat window $\phi 8.26$ mm nickel cap and Antireflection Coatings
	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.

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