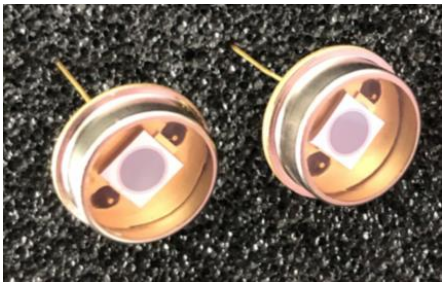
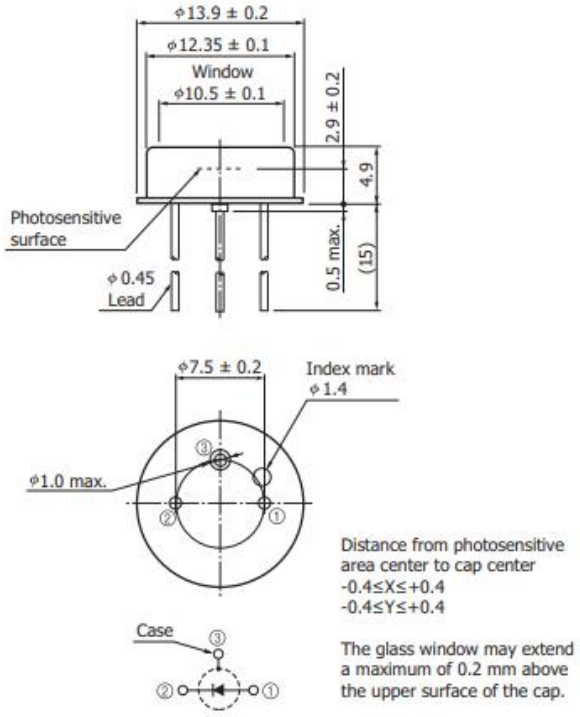
Silicon avalanched photodiode

APD4000-9T





NOTES:

All dimension are in millimeters.

Description

APD4000-9T is circular (Φ4000um) 12.56mm^2 active area Avalanche Photodiode array with optimized sensitivity At 905nm. It is well suited for applications requiring high Speed and low noise in Visible-near IR applications.

Features

* Top illumination planar APD
* Φ4000um active area
* High gain at low bias voltage
* Operating temperature is from -40 to +80℃
* Storage temperature is from -50 to +120℃
* soldering temperature is 260℃ @Max.5 seconds at the

Applications

* Laser range finder
*High speed optical communications

Absolute Maximum Ratings (Ta=25℃)

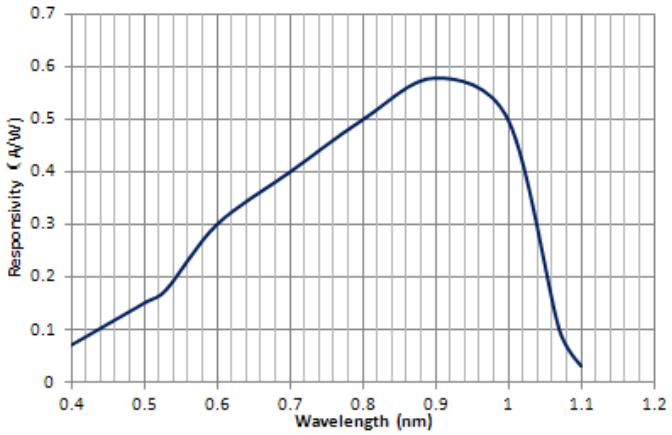
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Wavelength range	λ		400-1100			nm
Peak wavelength	λp		905			nm
Active diameter	ϕ		4000			μm
			12.56			mm^2
Dark current	I_D	M=100		35	45	nA
Junction Capacitance	C	M=100		20		PF
Reverse breakdown voltage	V_{BR}	Id=10μA	150		230	V
Operating voltage temperature coefficient	δ	Tc=-40~+85℃	0.9			V/℃
Rise time	t_R	F=1MHz,λ= 905nm, 50Ω		5		ns
Cut-off frequency		-3dB		70		MHz
Maximum multiplication gain	M_{max}	λ=905m,ϕe=1μw		100	1000	
Reponsivity	Re	λ=905nm,ϕe=1μw, M=100	50	58		A/W

Absolute Values

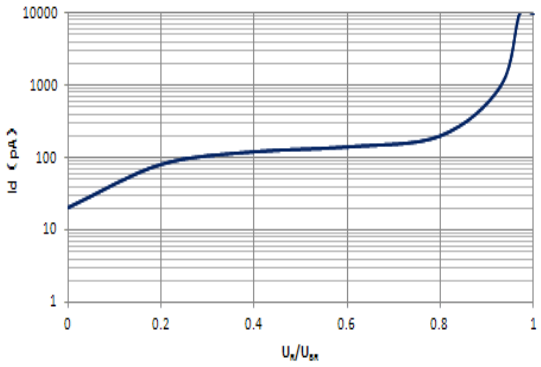
Operating voltage	$0.95\times V_{BR}$
Forward current	1mA
Power dissipation	1mW

OTRON ELECTRONIC TECHNOLOGY CO., LTD.
TEL:+86-21-54971821
FAX:+86-21-54971823
EMAIL: otron.sensor@gmail.com
http://www.e-otron.com

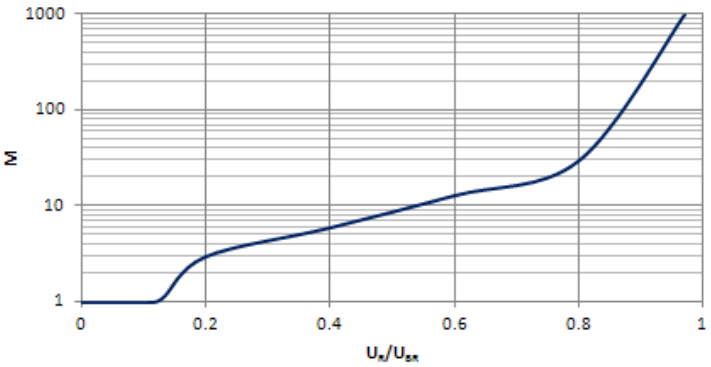
■ Responsivity vs. Wavelength at



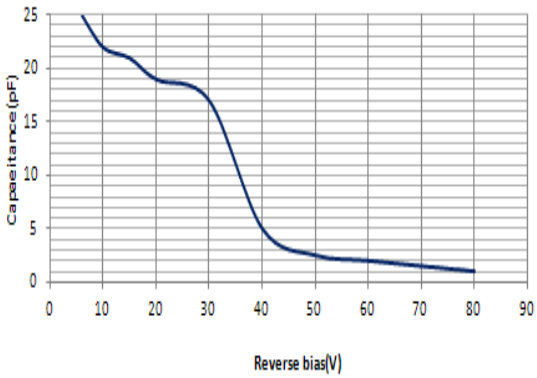
■Dark current VS.U_R/U_{BR}



■Gain vs.U_R/U_{BR}



■Capacitance vs. Operating voltage



■Gain vs. U_{BR}