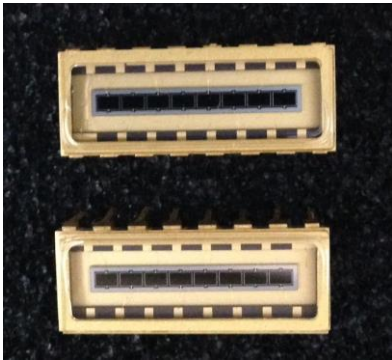


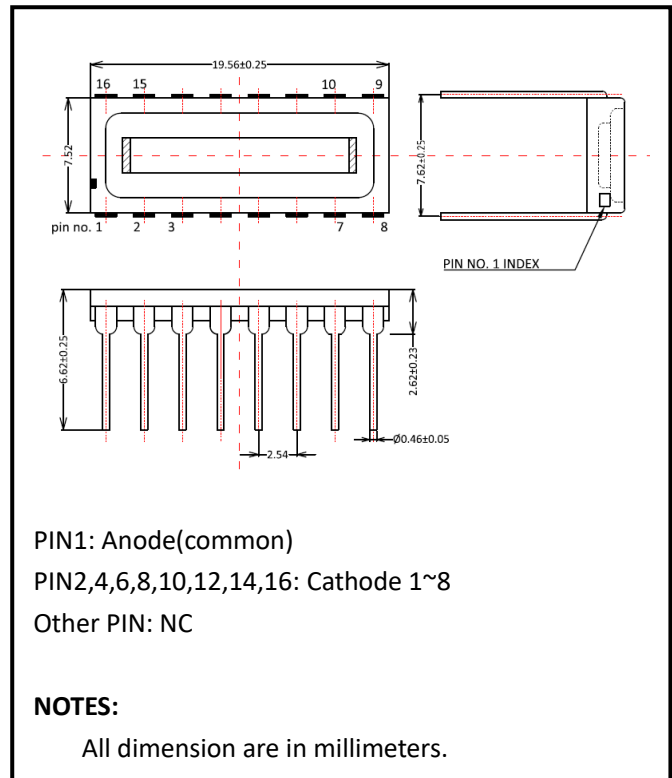
## Silicon avalanched photodiode

### Array (1\*8)



## Description

APD1697A8 is 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
- \* High gain at low bias voltage
- \* Operating temperature is from -40 to +80°C
- \* Storage temperature is from -50 to +120°C
- \* soldering temperature is 260°C @Max.5 seconds at the

## Applications

- \* Laser range finder, Lidar
- \* High speed optical communications
- \* Laser scanner

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice



## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Wavelength range	$\lambda$		400-1100			nm
Active diameter	$\phi$		1.60*0.97			mm
Gap/ Separation (centre to centre)			1.80			mm
Pitch			200			um
Dark current	$I_D$	M=100		0.3	1.0	nA
Junction Capacitance	C	M=100, f=1MHz	1.0	-		PF
Reverse breakdown voltage	$V_{BR}$	ID=10 $\mu$ A	160		200	V
Operating voltage temperature coefficient	$\delta$	Tc=-40~+85°C	0.9			V/°C
Rise time	$t_R$	F=1MHz, $\lambda=905$ nm, $R_L=50\Omega$		0.60		ns
Maximum multiplication gain	$M_{max}$	$\lambda=905$ nm, $\phi_e=1\mu$ w	100			
Reponsivity	Re	$\lambda=905$ nm, $\phi_e=1\mu$ w, M=100	45	55		A/W
Crosstalk					5	%

## Absolute Values

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

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OTRON ELECTRONIC TECHNOLOGY CO., LTD

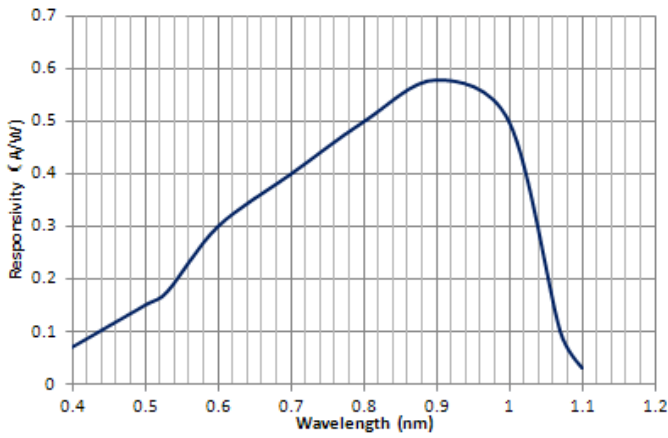
TEL:+86-21-54971821

FAX:+86-21-54971823

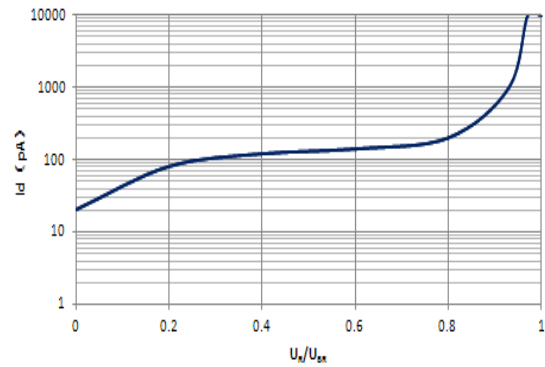
EMAL: [frank.shuai@e-otron.com](mailto:frank.shuai@e-otron.com)

<http://www.e-otron.com>

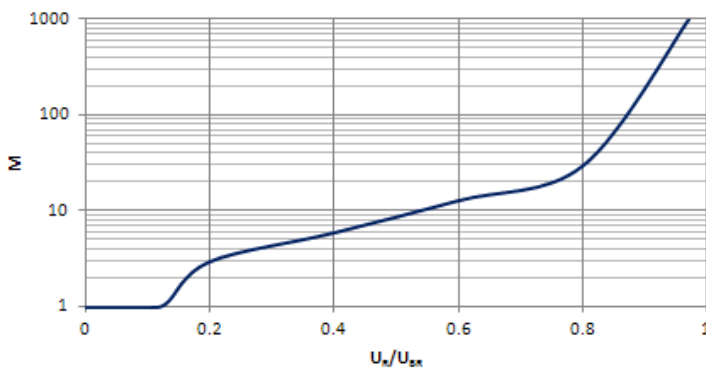
## ■ Responsivity vs. Wavelength at



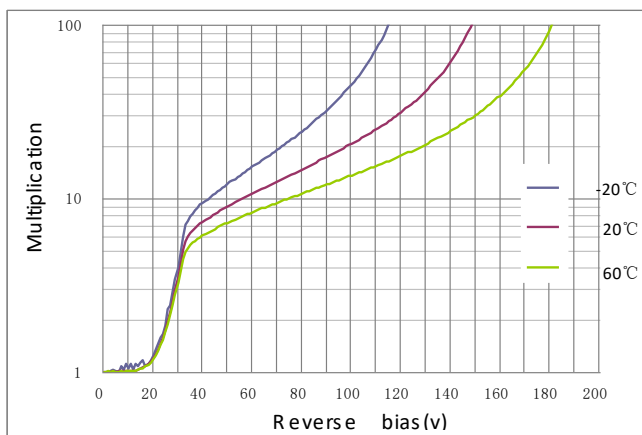
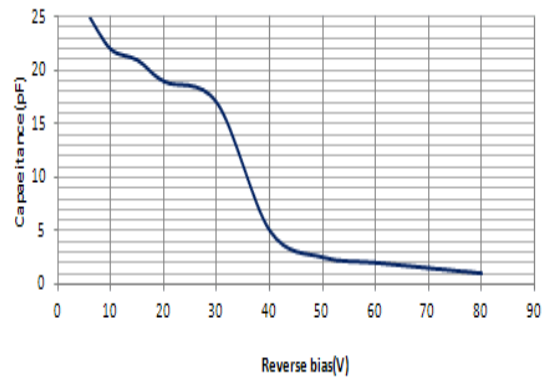
## ■ Dark current VS. $U_R/U_{BR}$



## ■ Gain vs. $U_R/U_{BR}$



## ■ Capacitance vs. Operating voltage



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