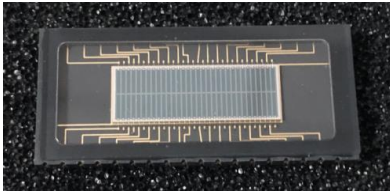


Silicon avalanched photodiode

Array (2*32)



Description

APD0530A32-2 is avalanche photodiode array with Optimized sensitivity at 905nm.

Features

- * Top illumination planar APD
- * High gain at low bias voltage
- * Operating temperature is from -40 to +105°C
- * Storage temperature is from -40 to +120°C

Applications

- * Laser range finder, Lidar
- * Area scanners for safety, speed measurement
- * 3D Laser scanner

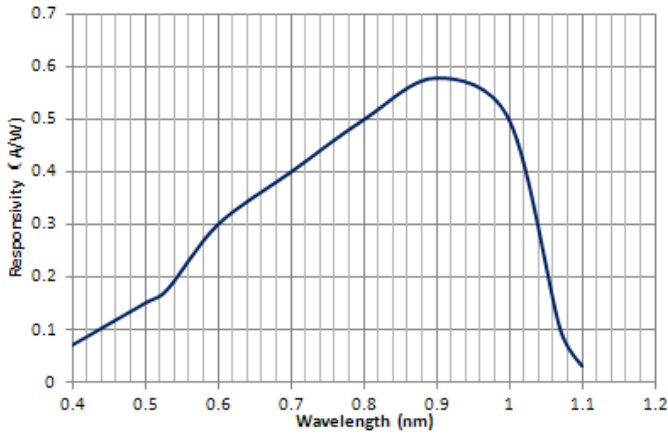


Absolute Maximum Ratings (Ta=25°C)

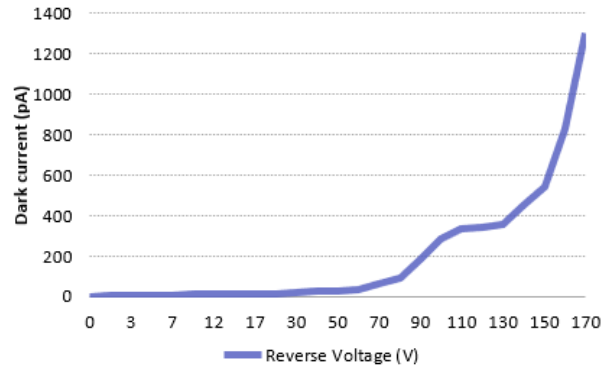
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Wavelength range	λ		400-1100			nm
Active diameter	ϕ		0.5*3.0			mm
Gap/ Separation (center to center)			0.06			mm
Pitch			100			um
Dark current	I_D	M=100		0.5	50	nA
Junction Capacitance	C	M=100, f=1MHz			150	PF
Reverse breakdown voltage	V_{BR}	ID=10μA	160		200	V
Operating voltage temperature coefficient	δ	Tc=-40~+85°C	0.9			V/°C
Bandwidth	BW	M=100@-3dB		300		MHz
Maximum multiplication gain	M_{max}	$\lambda=905nm, \phi_e=1\mu w$	100			
Reponsivity	Re	$\lambda=905nm, \phi_e=1\mu w, M=100$	45	55		A/W
Crosstalk					5	%

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

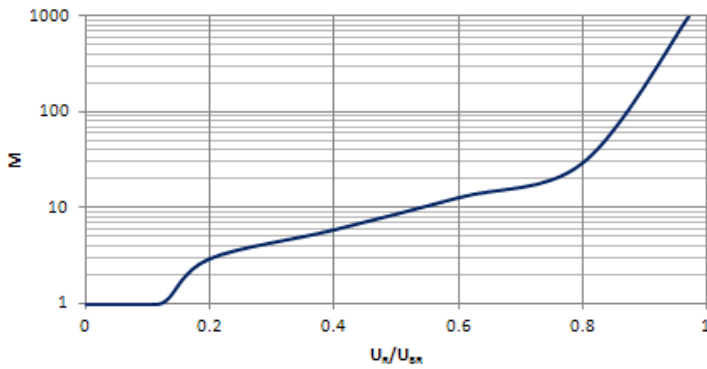
■ Responsivity vs. Wavelength at



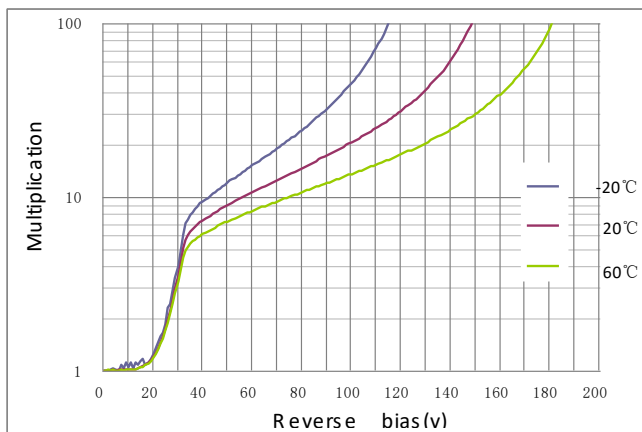
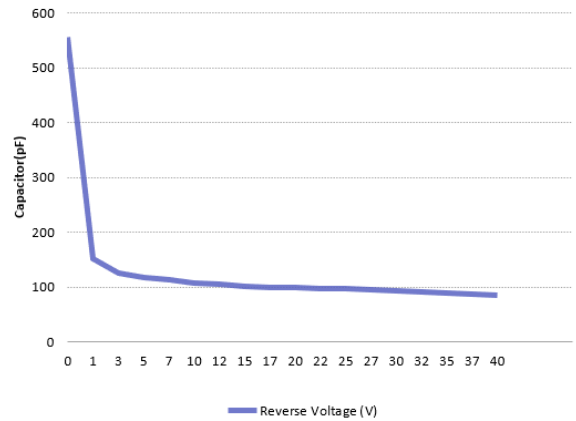
■ Dark current VS. U_R/U_{BR}



■ Gain vs. U_R/U_{BR}

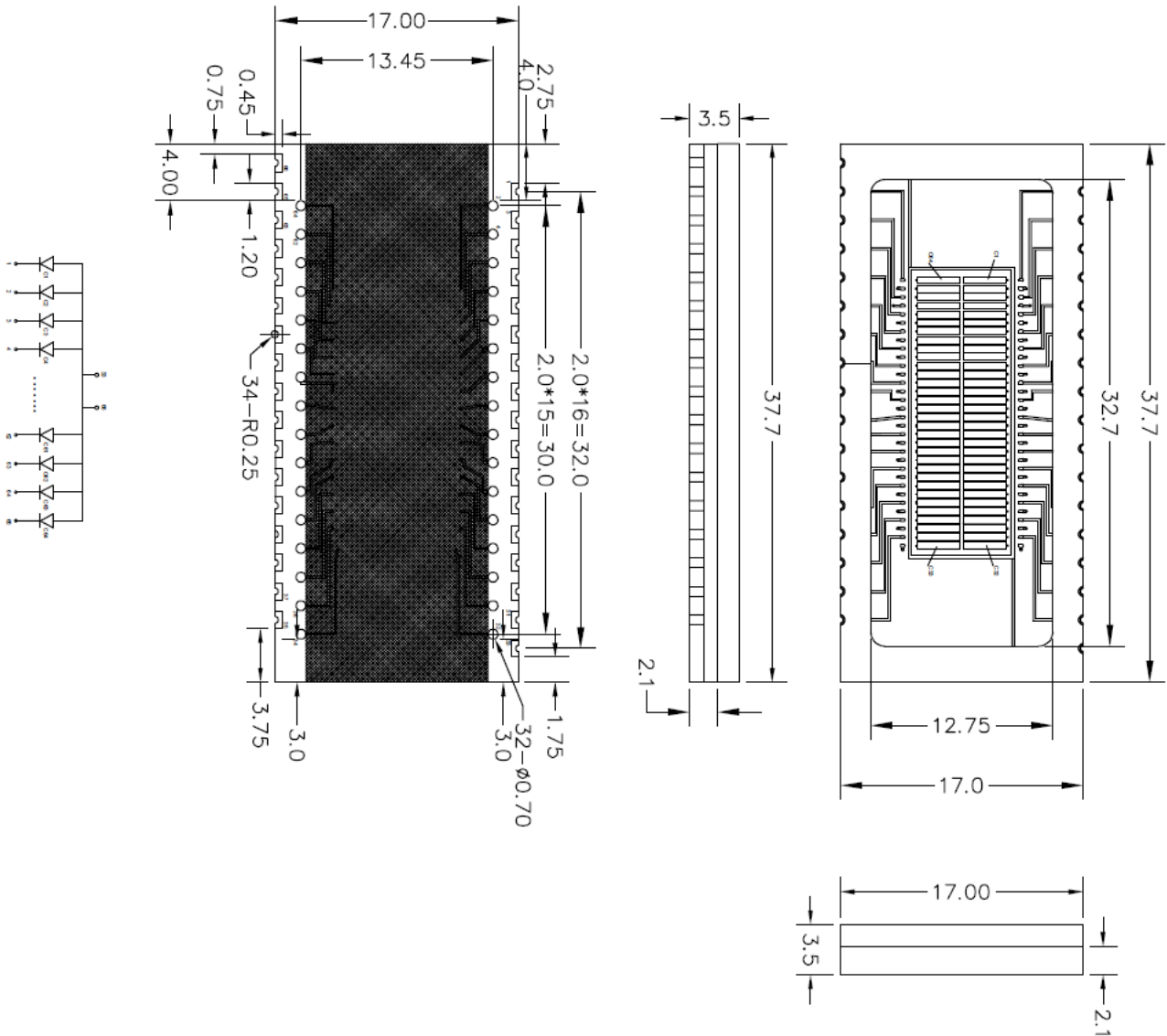


■ Capacitance vs. Operating voltage



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Dimensional outlines (unit: mm)



PIN CONNECTION													
1	C1	11	C11	21	C21	31	C31	41	C40	51	C50	61	C60
2	C2	12	C12	22	C22	32	C32	42	C41	52	C51	62	C61
3	C3	13	C13	23	C23	33	Anode	43	C42	53	C52	63	C62
4	C4	14	C14	24	C24	34	C33	44	C43	54	C53	64	C63
5	C5	15	C15	25	C25	35	C34	45	C44	55	C54	65	C64
6	C6	16	C16	26	C26	36	C35	46	C45	56	C55	66	Anode
7	C7	17	C17	27	C27	37	C36	47	C46	57	C56		
8	C8	18	C18	28	C28	38	C37	48	C47	58	C57		
9	C9	19	C19	29	C29	39	C38	49	C48	59	C58		
10	C10	20	C20	30	C30	40	C39	50	C49	60	C59		

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