

Features

- 16 element APD array
- High QE >80% for $\lambda = 760-910$ nm
- High speed, low noise
- High uniformity, low cross talk

Description

Matrix APD array for NIR detection.
Hermetic ceramic SMD package with soldered glass lid.

Application

- LIDAR range finder
- Lidar ACC
- Laser scanner

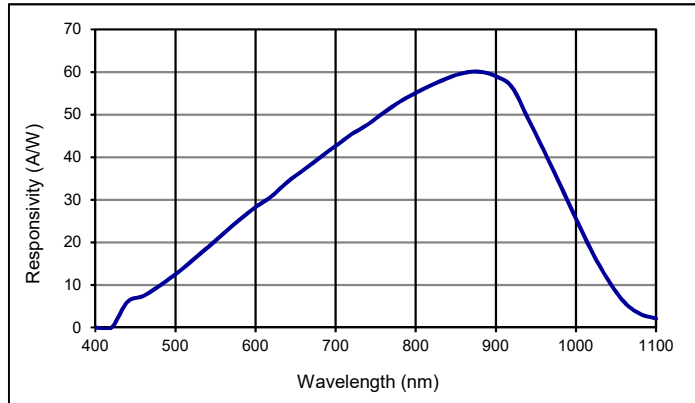
RoHS

2011/65/EU

Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-40	100	°C
T_{OP}	Operating temp	-20	70	°C
M_{max}	Gain ($I_{P0} = 1$ nA)	200		
I_{PEAK}	Peak DC current		0.25	mA

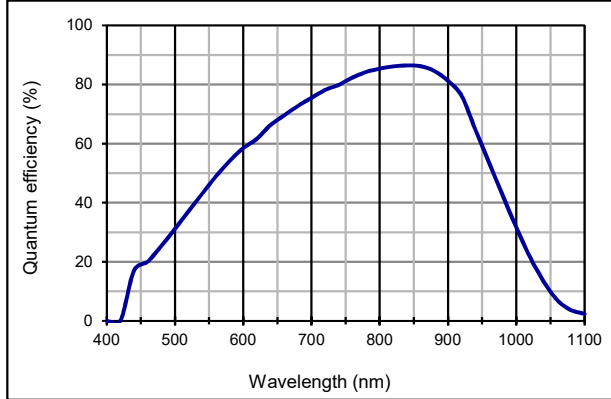
Spectral response (M = 100)



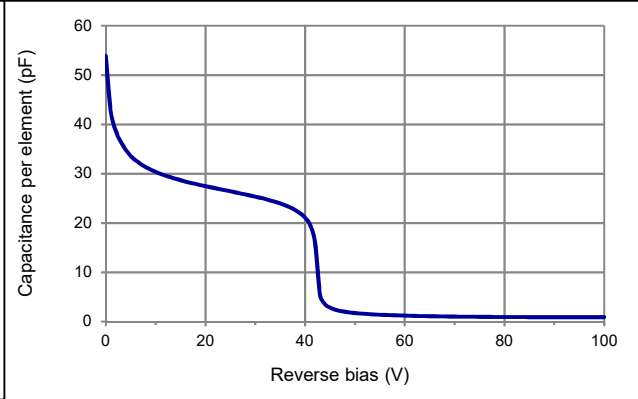
Electro-optical characteristics @ 23°C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	No of elements			16		
	Active area			1000 x 405		μm
	Gap; Pitch			95 ; 500		μm
I_D	Dark current	M = 50; per element		2.0		nA
C	Capacitance	M = 50; per element		1.0		pF
	Responsivity	M = 100; $\lambda = 905$ nm	52	58		A/W
t_R	Rise time	M = 100; $\lambda = 905$ nm; $R_L = 50 \Omega$		2		ns
V_{BR}	Breakdown voltage	$I_R = 2 \mu\text{A}$	160	200	240	V
	Temperature coefficient			1.45		V/K
	Cross talk	$\lambda = 905$ nm		50		dB
	Photo current uniformity	M = 50		± 5	± 20	%

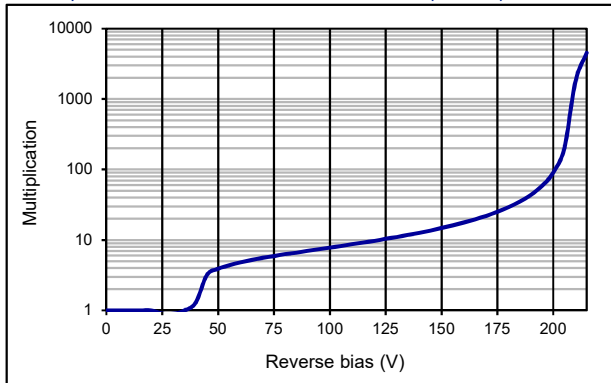
Quantum efficiency (23 °C)



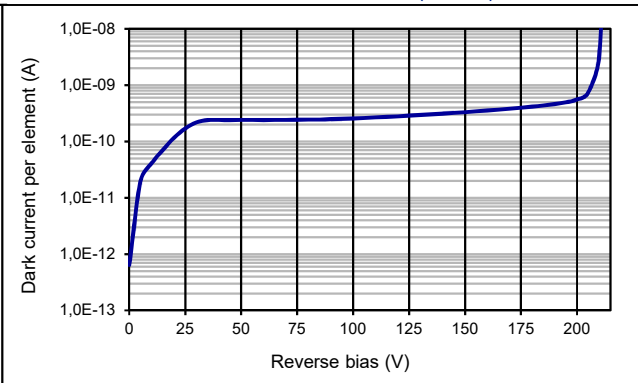
Capacitance as fct of reverse bias (23 °C)



Multiplication as fct of reverse bias (23 °C)

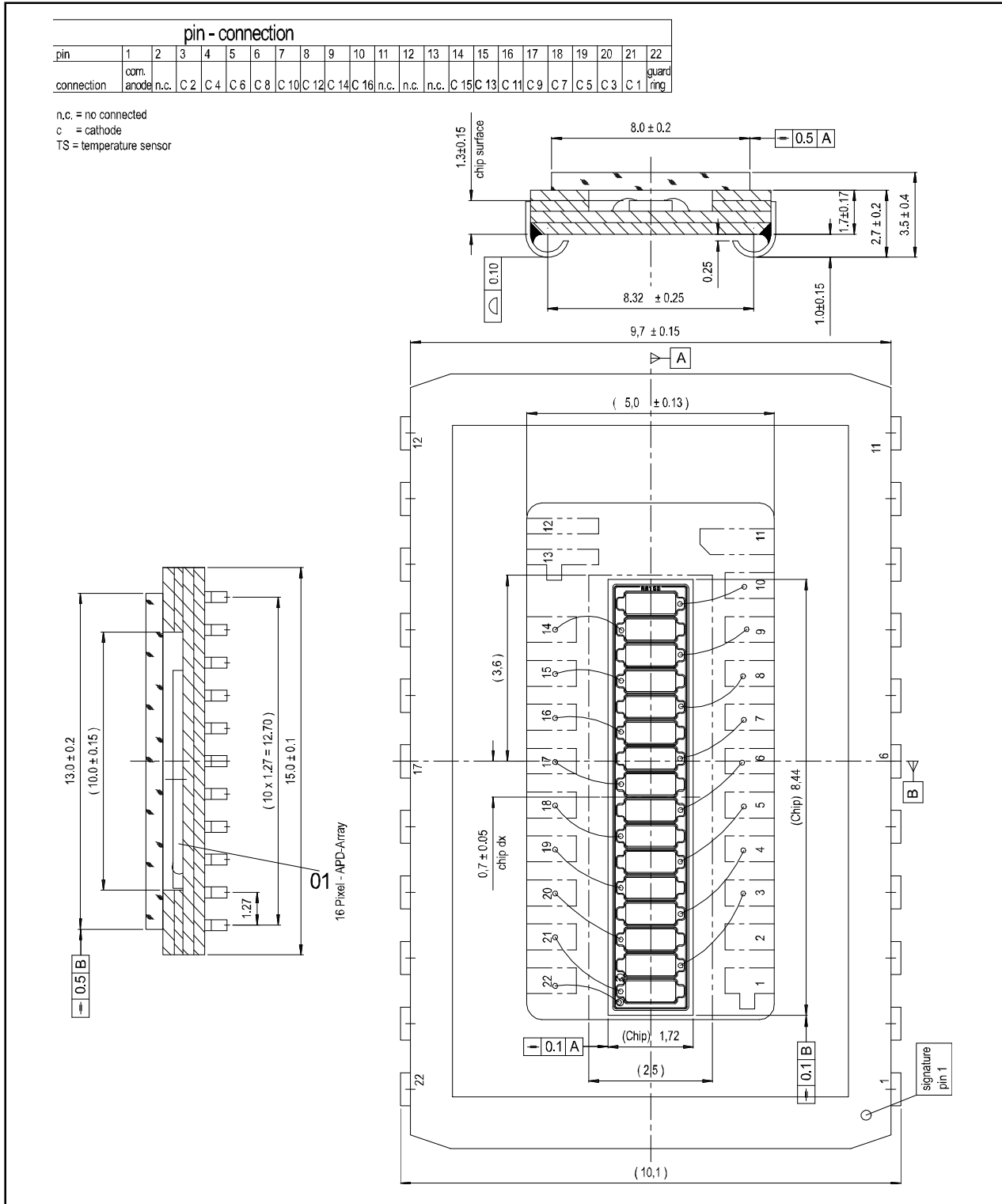


Dark current as fct of reverse bias (23 °C)

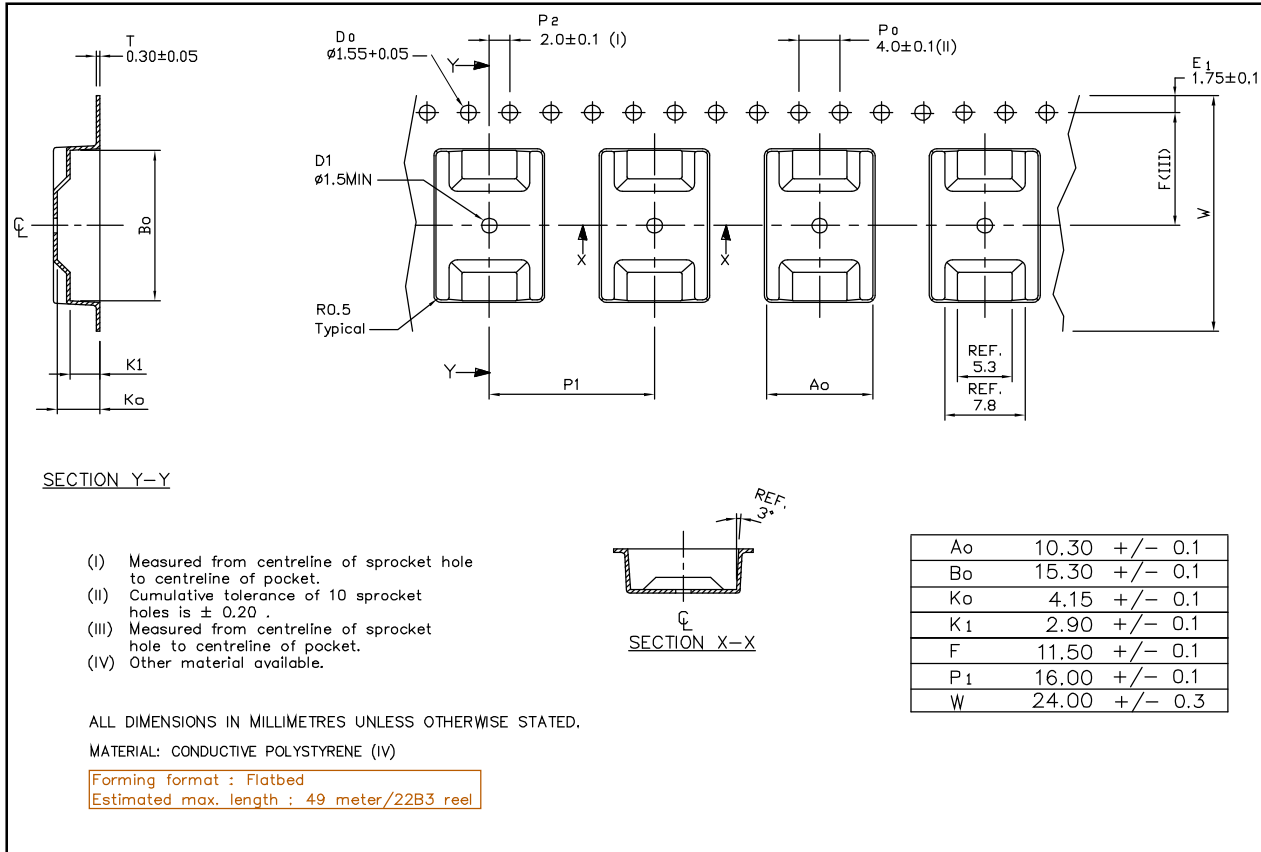


Handling: Please refer to document "Instructions for handling and processing"
Please consider ESD protection while handling.

Technical Drawing, Package: SMD SOJ22 with soldered glass lid



Package dimension



For smaller quantities chip trays are available (16 pcs per tray)

Disclaimer: Due to our strive for continuous improvement, specifications are subject to change within our PCN policy according to JESD46C.

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