
Features

- 8 element APD array with NTC
- 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 and NTC.

Application

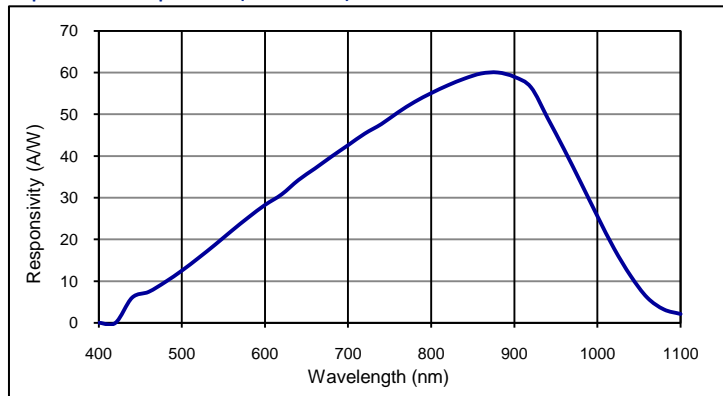
- LIDAR range finder
- Lidar ACC
- Laser scanner

RoHS

2002/95/EC


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 ($I_{PO} = 1$ nA)	200		
I_{PEAK}	Peak DC current		0.25	mA

Spectral response (M = 100)

Electro-optical characteristics @ 23°C

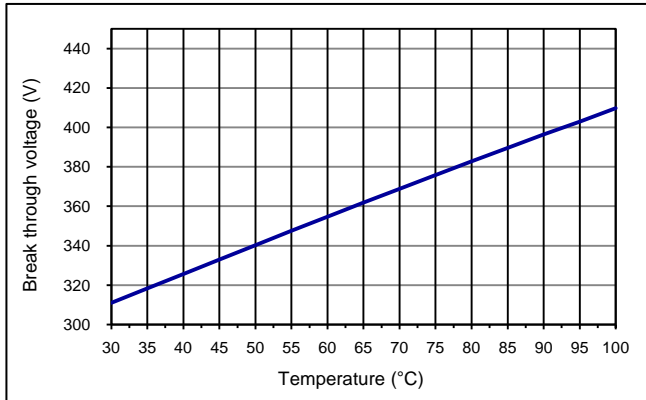
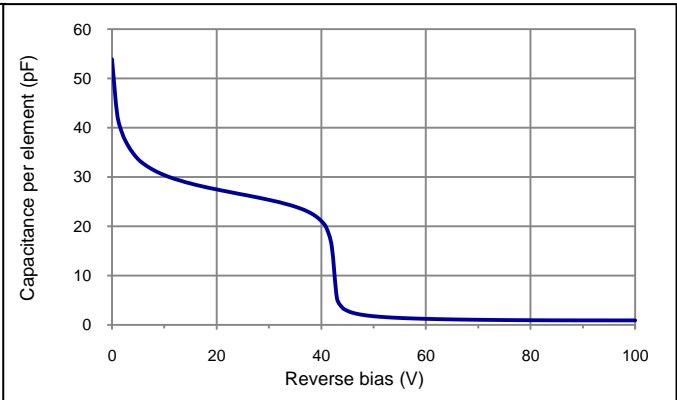
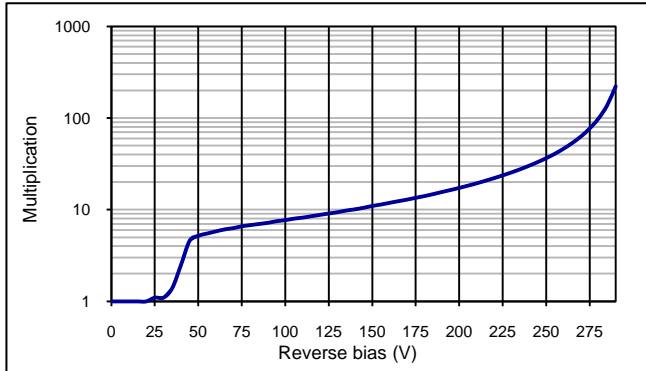
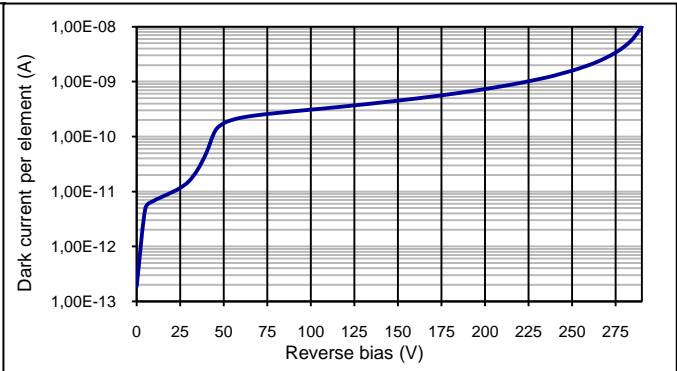
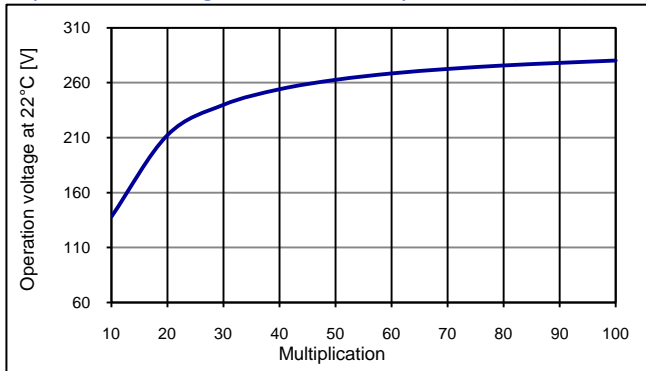
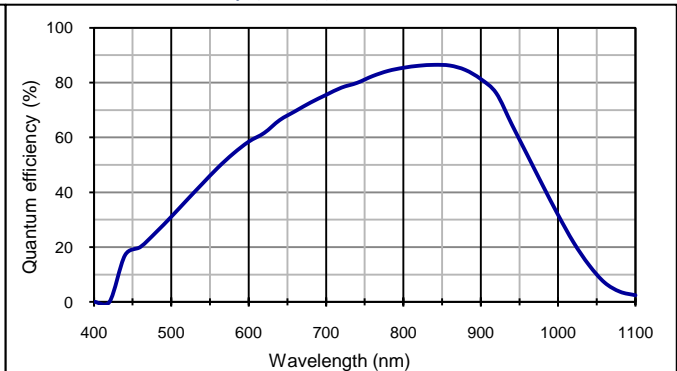
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	No of elements			8		
	Active area			1000 x 405		μm
	Gap; Pitch			95 ; 500		μm
I_D	Dark current	$M = 50; \lambda = 880$ nm, per element		2.0		nA
C	Capacitance	$M = 50$, per element		1.0		pF
	Responsivity	$M = 100; \lambda = 905$ nm	55	60		A/W
t_R	Rise time	$M = 100; \lambda = 905$ nm; $R_L = 50$ Ω		2		ns
V_{BR}	Breakdown voltage	$I_R = 2$ μA	100	300	400	V
	Temperature coefficient			1.45		V/K
	Cross talk	$\lambda = 905$ nm		50		dB
	Photo current uniformity	$M = 50$		± 5	± 20	%
	Dark current uniformity	$M = 50$		± 5	± 20	%
	Resistance of NTC	$T = 25$ °C		10		k Ω
	Alpha value of NTC	$T = 25$ °C		-4.39		%/°C
	Beta value 25/85 of NTC	$T = 25$ °C		3976		K

European, International Sales:


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U_{br} as fct of temperature (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)

Operation voltage as fct of multiplication (23 °C)

Quantum efficiency (23 °C)


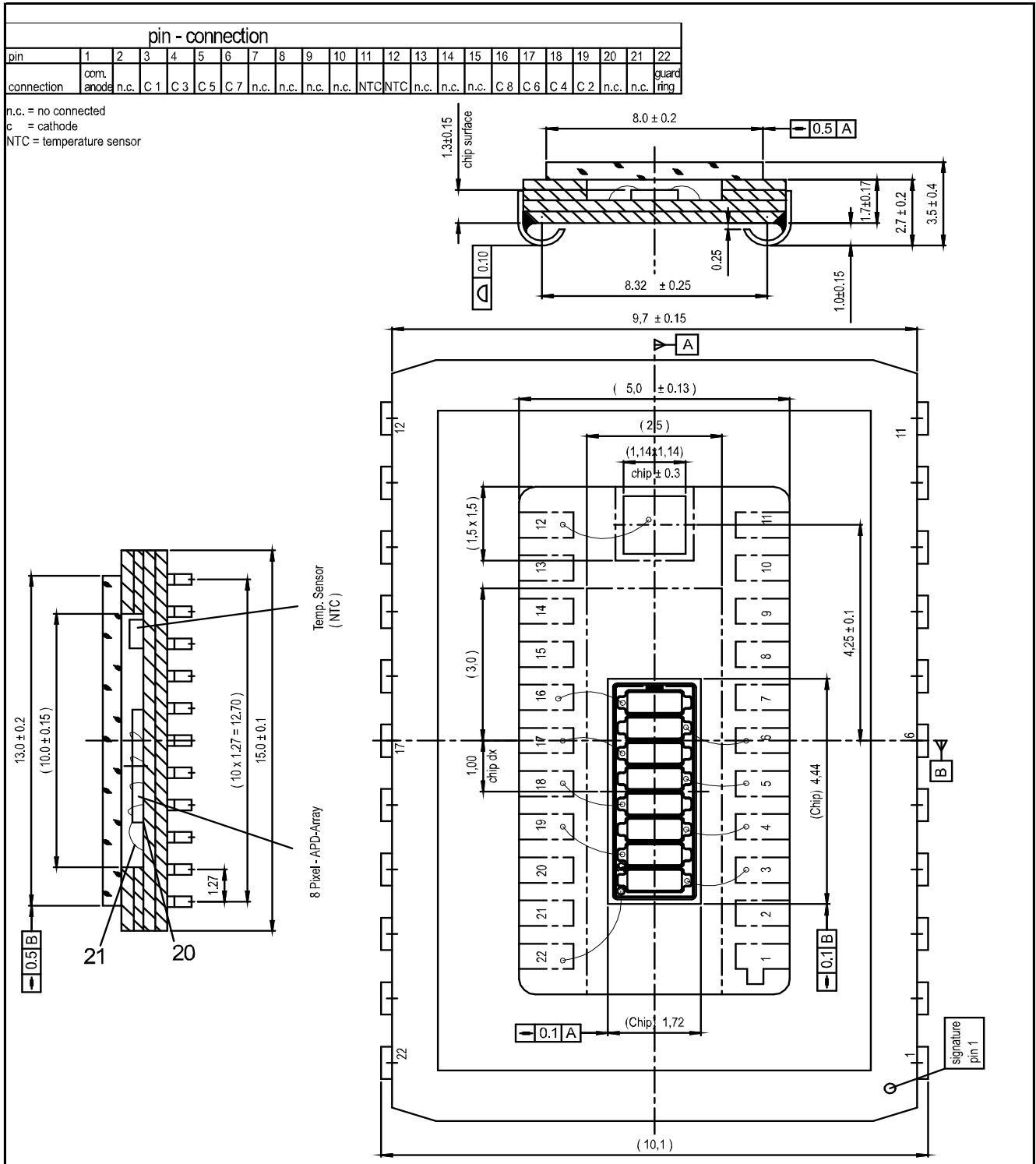
Handling: Please refer to document "Instructions for handling and processing".
Please consider ESD protection while handling.

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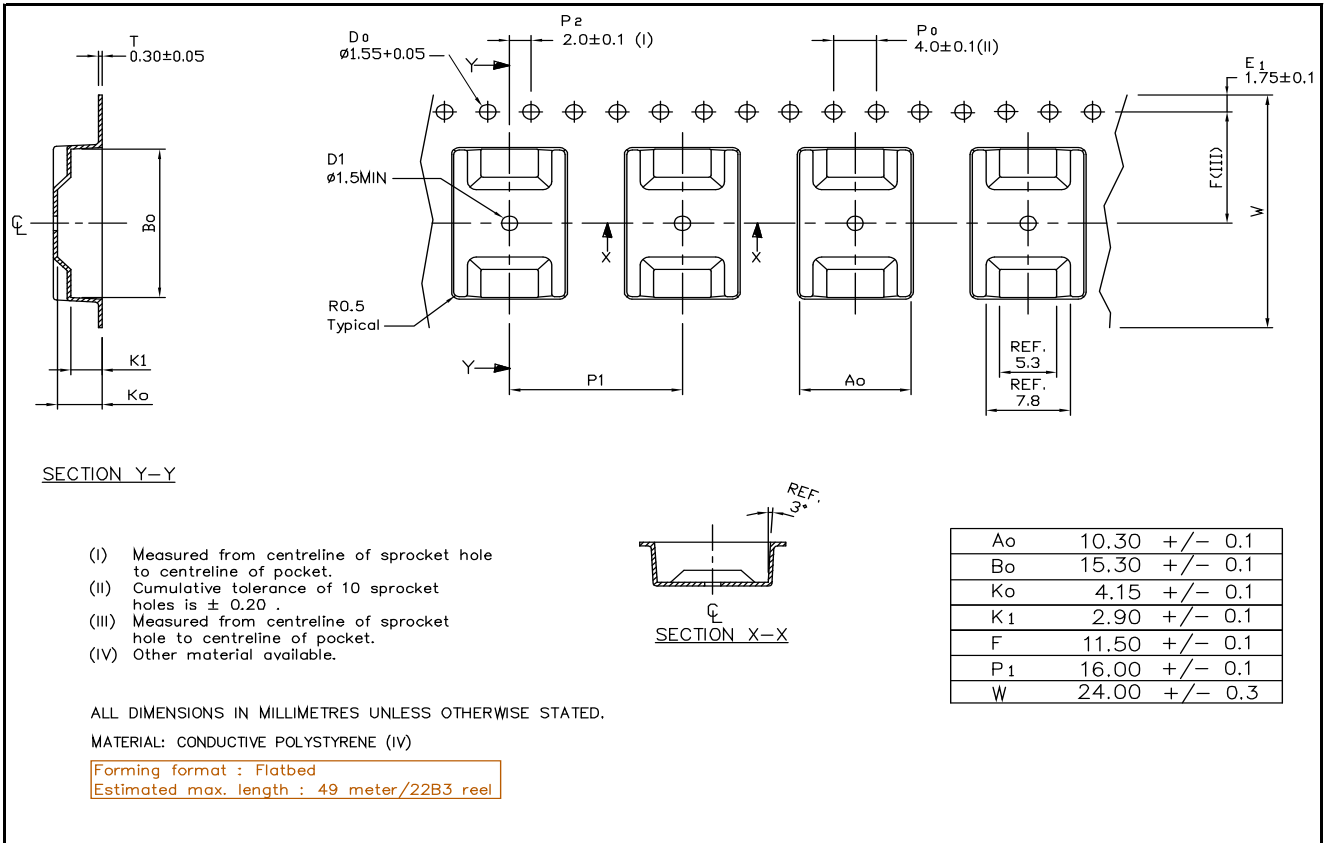

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Technical Drawing, Package: SMD SOJ22 with soldered glass lid

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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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