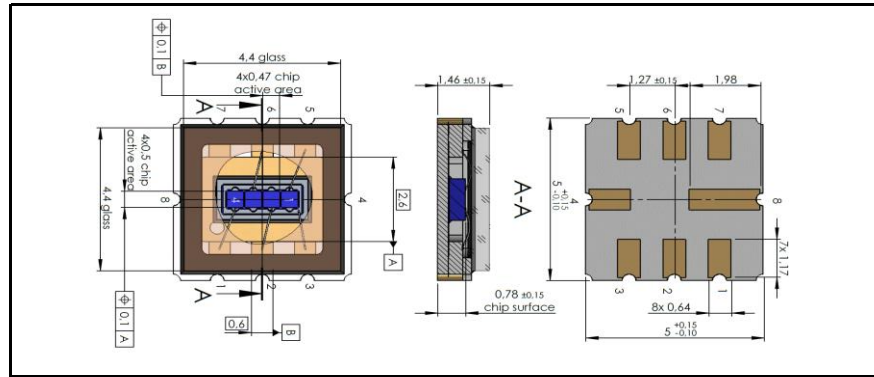
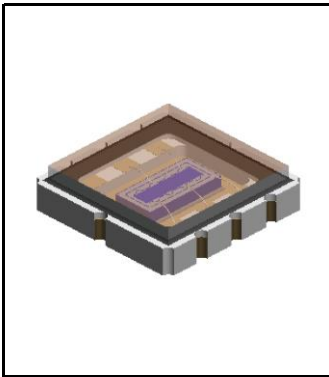


Preliminary for A - samples



Features

- 4 element APD array
- High speed, low noise

Description

Matrix APD array chip for NIR detection. Ceramic carrier type non hermetic SMD package with AR coated glass window.

Application

- LIDAR applications

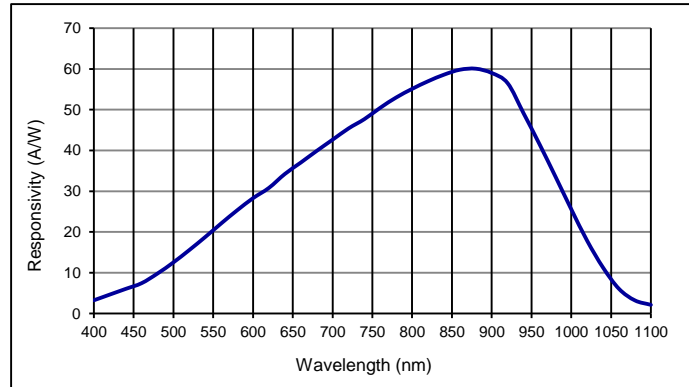
RoHS

2011/65/EU

Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-40	100	°C
T_{OP}	Operating temp	-40	85	°C
M_{max}	Gain ($I_{P0} = 1 \text{ nA}$)	200		
I_{PEAK}	Peak DC current		0.25	mA

Spectral response (M = 100)

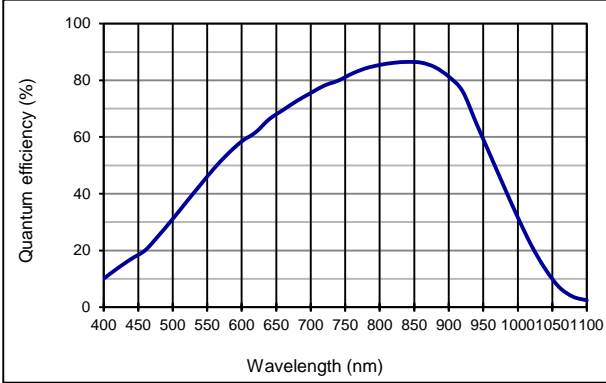


Electro-optical characteristics @ 23 °C

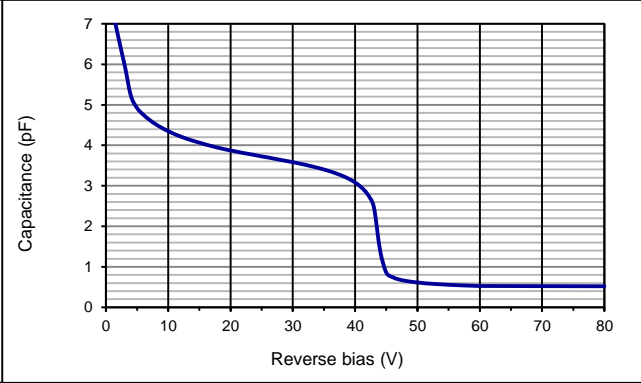
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	No of elements			4		
	Active area	per element		470 x 500		μm
	Gap; Pitch			40 ; 510		μm
I_D	Dark current	M = 100, per element		50	500	pA
C	Capacitance	M = 100, per element, f=100 kHz		0.55		pF
	Responsivity	M = 100, $\lambda = 905 \text{ nm}$	52	58		A/W
t_R	Rise time	M = 100 V; $\lambda = 905 \text{ nm}$; $R_L = 50 \Omega$		1.3		ns
V_{BR}	Breakdown voltage	$I_R = 2 \mu\text{A}$	160	200	240	V
	Cross talk	$\lambda = 905 \text{ nm}$		50		dB
	Temperature coefficient			1.45		V/K
	Photo current uniformity	M=50		±2	±10	%
T	AR coating cover glass	$\lambda = 905 \text{ nm}$, AOI = 0°	99			%

Preliminary for A - samples

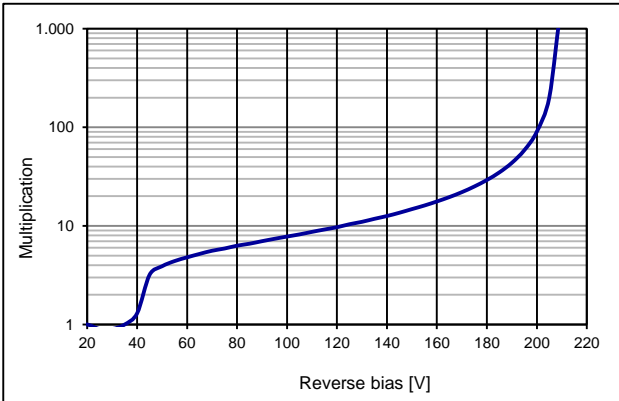
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Multiplication as fct of bias (23 °C)

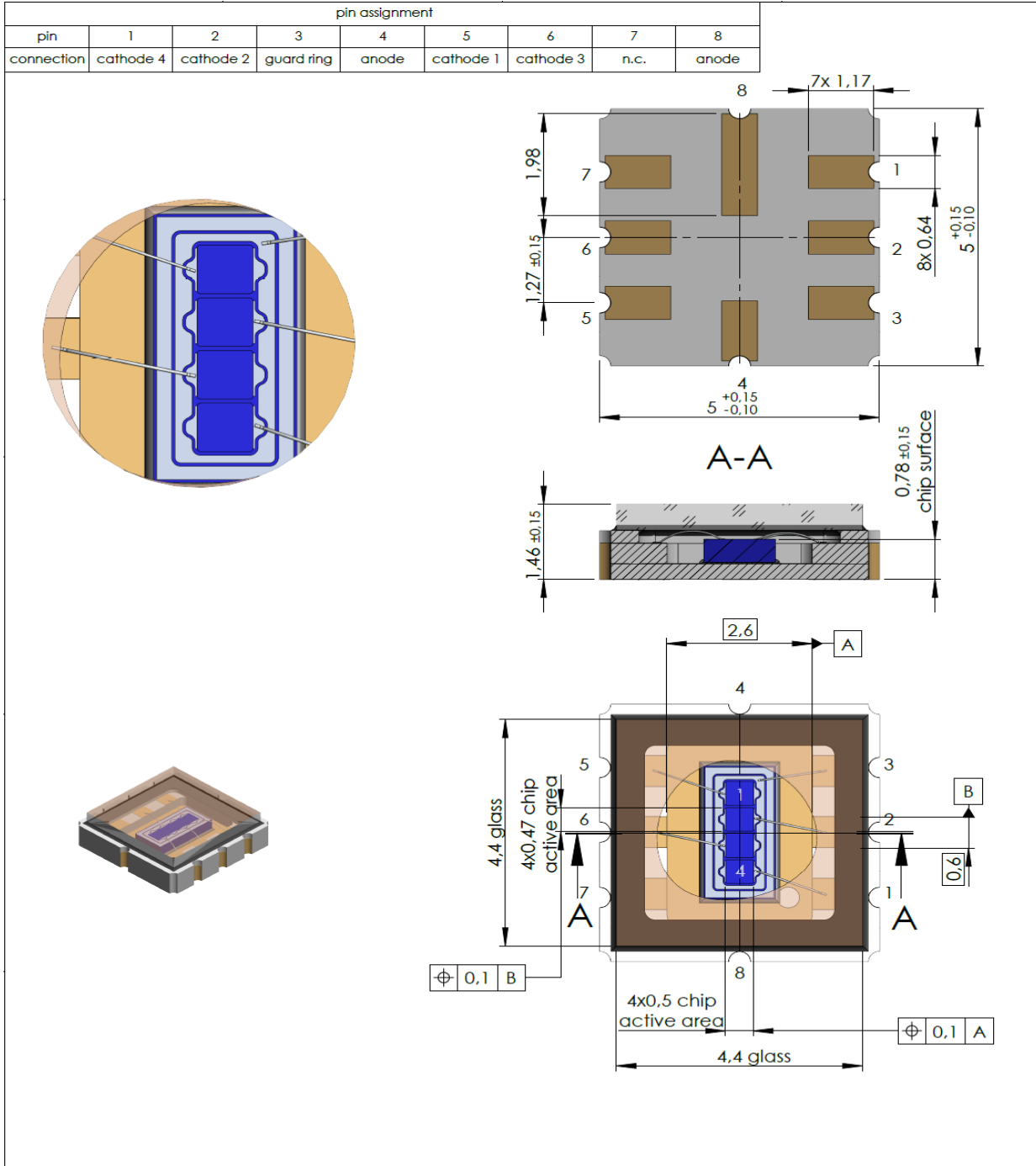


Handling:

Please refer to document "Instructions for handling and processing"

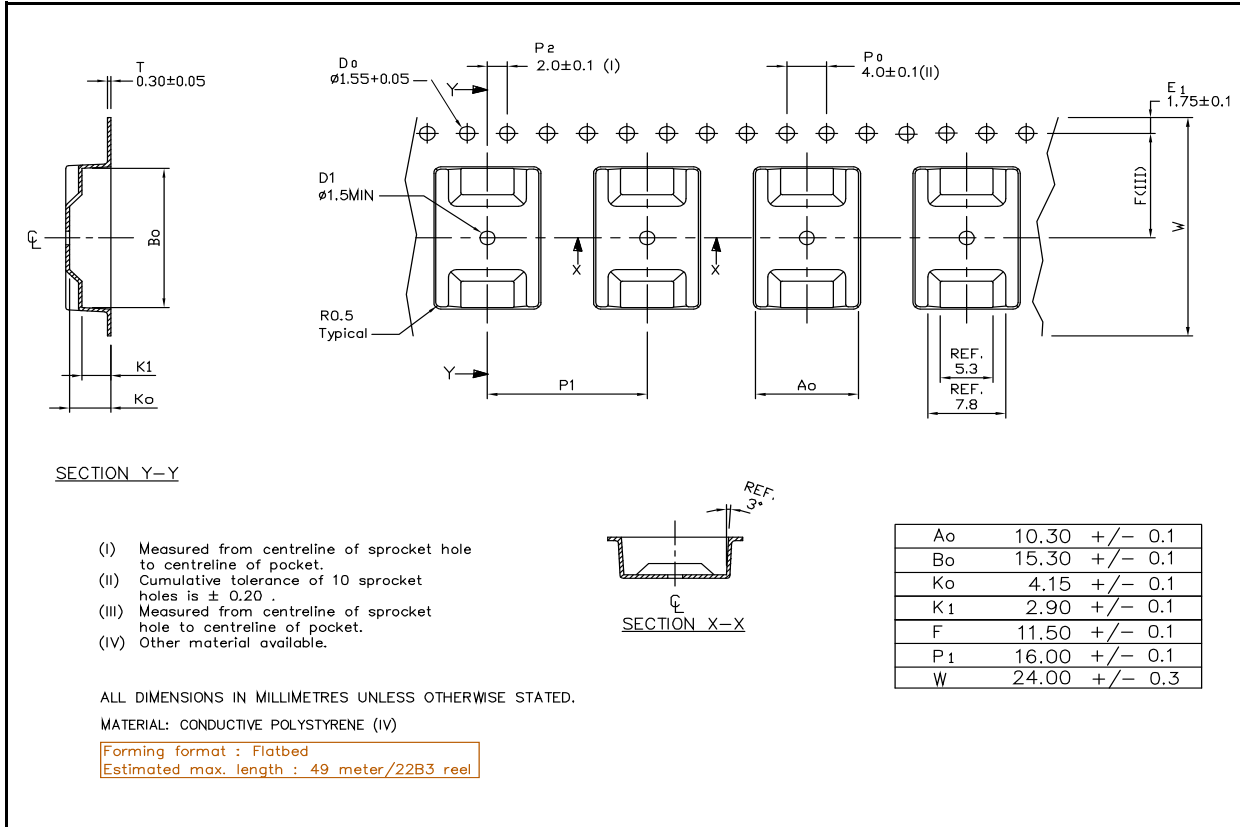
Preliminary for A - samples

Technical Drawing, Package: SMD LCC8



Preliminary for A - samples

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.