

InGaAs Avalanche Photodiode (APD) 10 Gbps(Chip)

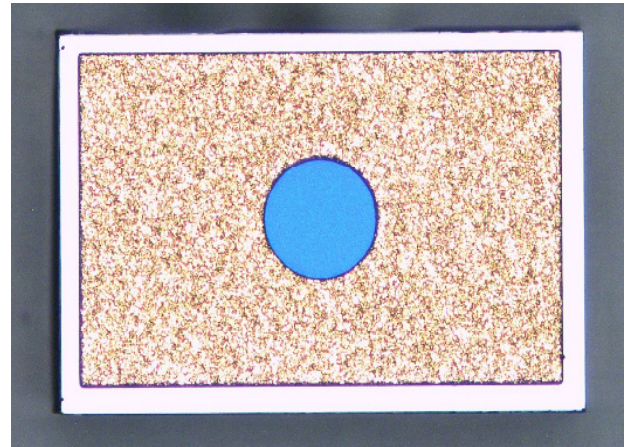
PDAB0022-C

Applications:

Long Haul Receivers
SONET/SDH Receivers

Features:

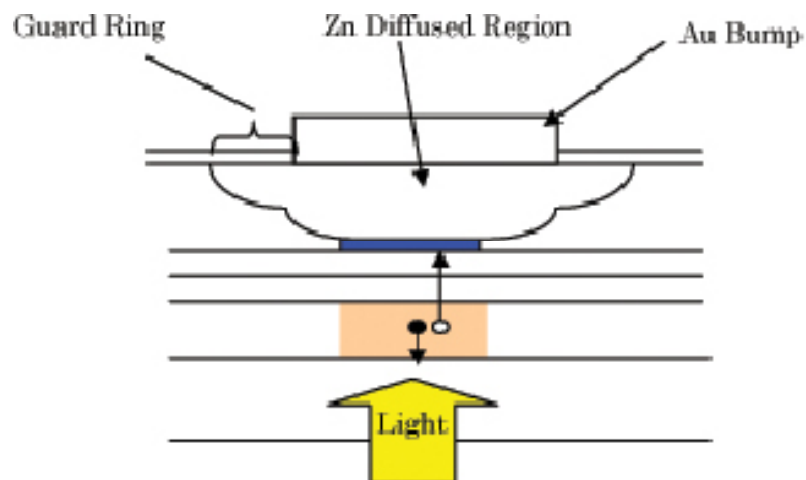
Ceramic sub-carrier
Planer Structure for High Reliability
1000 to 1625nm Spectral Response
Low Dark Current



Description:

Go!Foton's Avalanche Photodiode (APD) is suitable for 10 Gbps applications in optical communications. This InGaAs APD has a planer structure for high reliability. The optical signal goes through the aperture for a back illuminated structure.

Schematic:



Specifications:

Electro-Optical Characteristics

Parameter	Min.	Typ.	Max.	Conditions
Active Area Diameter (μm)		22		
Responsivity (A/W)	0.80			1.55 μm , M=1
Dark Current (nA)			50	0.9V _{br} , 25°C
Breakdown Voltage (V)	25		35	10 μA
Capacitance (pF)			0.7	1MHz, M=10
Frequency Response (GHz)	7			M=8, RL=50
Operating Voltage (V)			V _{br} -1	M=10
Punch-through Voltage (V)	15		V _b -10	See below
Temperature Coefficient of Vb (%/°C)			0.15	

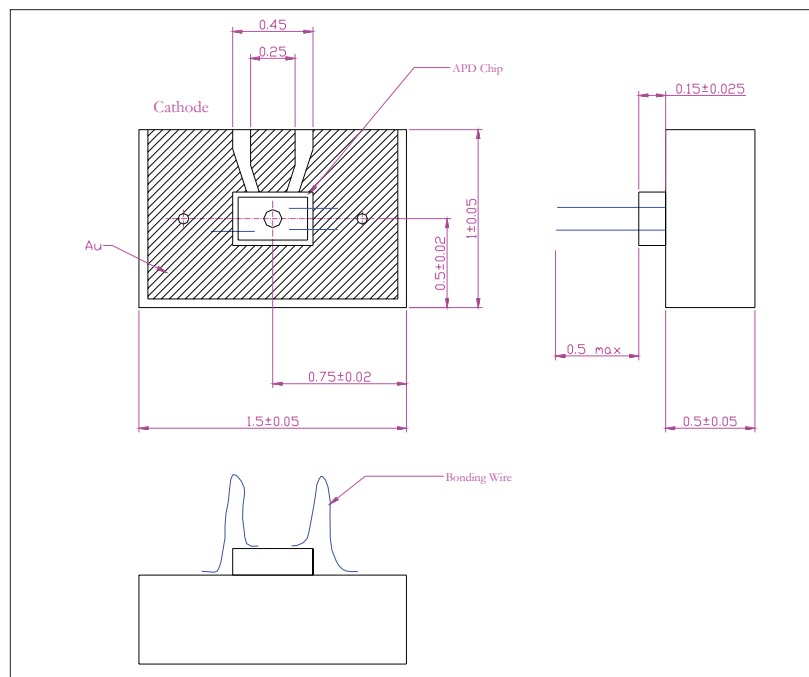
- 1) Condition unless noted; 25°C, P_{out} = 1 μW
- 2) Punch-through voltage is defined as voltage where 1.5V above the voltage where the first deviation of IV curve under illumination shows local maximum.
- 3) Responsivity at punch-through voltage is defined as responsivity at M=1

Absolute Maximum Rating

Parameter	Min.	Typ.	Max.
Reverse Current (mA)			1
Forward Current (mA)			1
Maximum Input Power (mW)			0.5
Operating Temperature ⁴⁾ (°C)	0		+85
Storage Temperature ⁴⁾ (°C)	-40		+85

- 4) Operational or storage beyond these absolute maximum ratings cause permanent damage to the device.

Dimension:



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