
Features

- 100 mm² PIN detector
- Light blocking aluminum layer
- Low dark current
- High sensitivity

Description

Square active area PIN photodiode with 100 mm² active area. Ceramic carrier type 2-pin package with light blocking aluminum layer. Non-hermetic.

Application

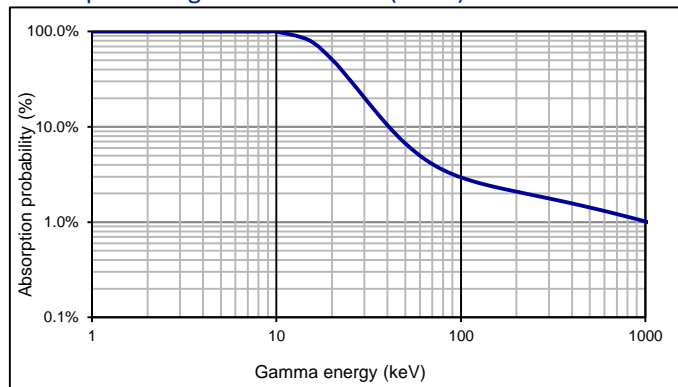
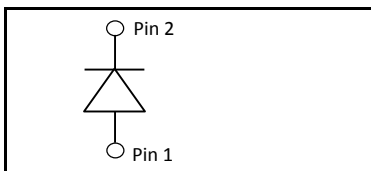
- Ionizing radiation detector
- Medical equipment
- Personal dosimeter

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
V _{max}	Max reverse voltage		50	V
I _{PEAK}	Peak DC current		10	mA

Absorption of gamma radiation (23 °C)

Schematic

Electro-optical characteristics @ 23 °C

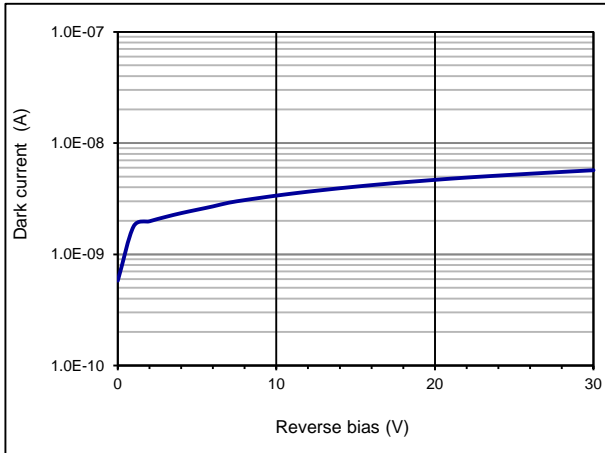
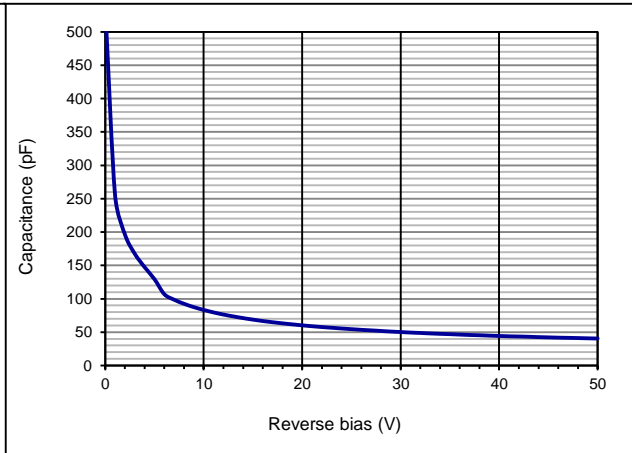
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		10 x 10			mm
	Active area		100			mm ²
	Detectable radiation	Gamma radiation	1		1000	keV
	Count rate Cs-137	V _R = 10 V		65		cpm / μSv/h
I _D	Dark current	V _R = 10 V		5	10	nA
C	Capacitance	V _R = 0 V; f = 10 kHz		500		pF
		V _R = 10 V; f = 10 kHz	65	90	100	pF
t _R	Rise time	V _R = 10 V; E = 10 keV; R _L = 50 Ω			2000	ns
	Shunt Resistance	V _R = 10 mV		25		MΩ
V _{BR}	Breakdown voltage	I _R = 2 μA	50	80		V

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Dark current (23 °C)

Capacitance as fct of reverse bias (23 °C)

Package dimension:

Small quantities: Foam pad, boxed (12 cm x 16.5 cm)

Handling:

Please refer to document "Instructions for handling and processing"

Please be aware that the aluminum layer on the chip surface is very thin and can be damaged easily.

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

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