
Features

- 10 mm² PIN detector
- Very low dark current
- Very low dark capacitance
- Fully depletable
- Guard ring diode

Description

Circular active area PIN photodiode with 10 mm² active area. Metal can type non-hermetic TO8Si package with CsI:Ti scintillator and aluminized Kapton window.

Application

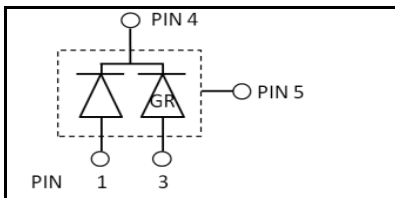
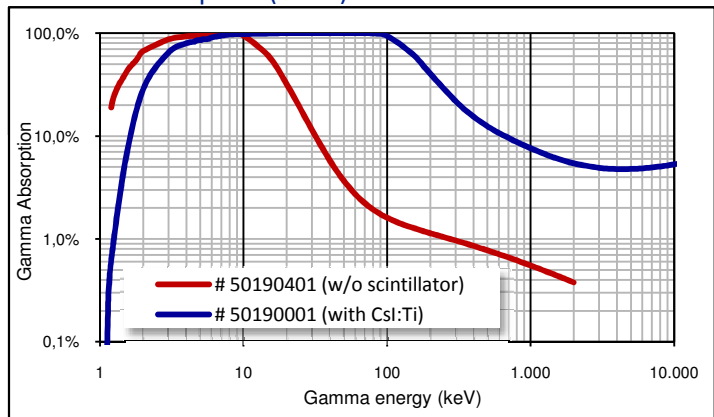
- Dosimeter
- Radiation monitoring
- Gamma diffraction
- X-ray fluorescence
- Density measurements

RoHS

2002/95/EC


Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T _{STG}	Storage temp	-55	125	°C
T _{OP}	Operating temp	-20	70	°C
U _R	Reverse voltage		300	V
I _{PEAK}	Peak DC current		10	mA

Schematic

Gamma - Absorption (23 °C)

Electro-optical characteristics @ 23 °C

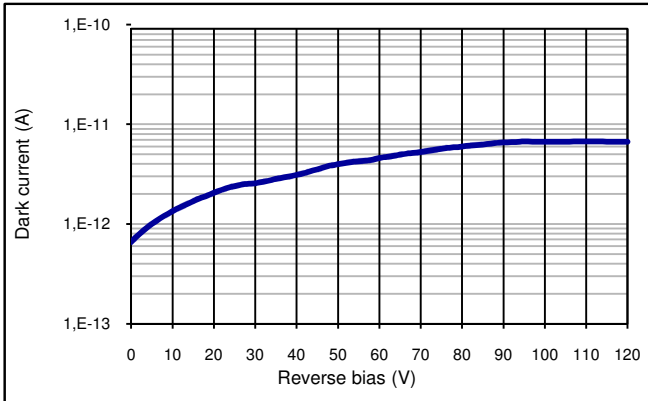
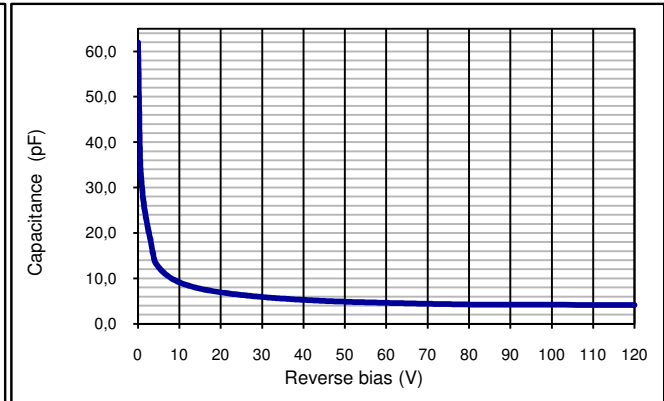
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	No of elements			1		
	Active area	Diameter		3.75		mm
	Window material			double-aluminized Kapton (25 μm)		
	Scintillator			3 mm CsI(Ti)		
I _D	Dark current	U = 0 V		1	2	pA
		U = 120 V (full depletion)		20	40	pA
C	Capacitance	U = 0 V		65		pF
		U = 120 V (full depletion)		4.5		pF
t _R	Rise time	U = 120 V; 20 keV; R _L = 50 Ω		0.9		μs
U _{BR}	Breakdown voltage	I _R = 2 μA	300	500		V
	Energy range of detectable radiation	X-Ray / Gamma radiation	2		10000	keV

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Dark current as fct of reverse bias (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 consider basic ESD protection while handling

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

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