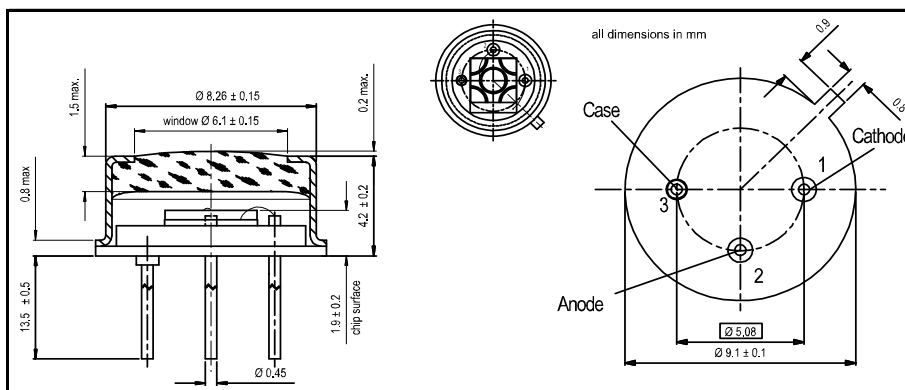
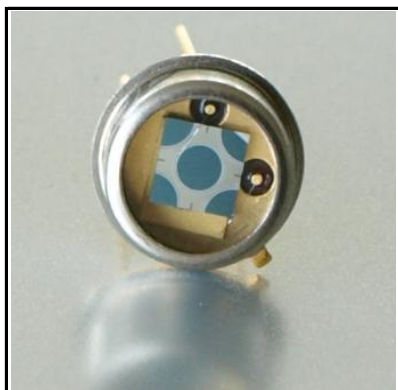




Features

- $\varnothing$ 1900 μ m active area
- High QE for λ = 350-750 nm
- Low noise
- Fast rise time

Description

Circular active area APD chip with blue enhanced sensitivity. Metal can type hermetic TO5i package with UV glass window.

Application

- Analytical equipment
- Scintillation
- Medical equipment
- High speed photometry

RoHS

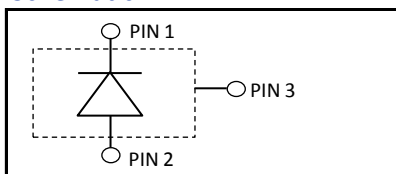
2002/95/EC



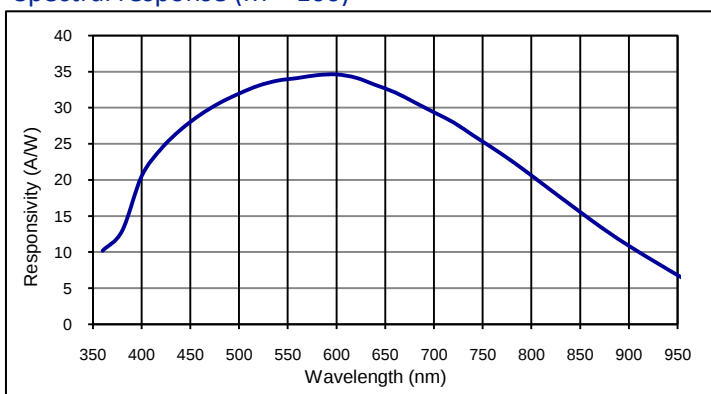
Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-55	125	°C
T_{OP}	Operating temp	-40	85	°C
M_{max}	Gain ($I_{P0} = 1$ nA)	200		
I_{PEAK}	Peak DC current		0.25	mA

Schematic



Spectral response (M = 100)



Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Active area		diameter 1950			μ m
	Active area		3.0			mm ²
I_D	Dark current	M = 100		5.0	20.0	nA
C	Capacitance	M = 100		10		pF
	Responsivity	M = 100; λ = 410 nm		22		A/W
	Responsivity	M = 100; λ = 500 nm		32		A/W
t_R	Rise time	M = 100; λ = 410 nm; $R_L = 50 \Omega$		2		ns
	Cut-off frequency	-3dB		175		MHz
V_{BR}	Breakdown voltage	$I_R = 2 \mu$ A, V_{BR} - binning available	90		240	V
	Temperature coefficient	Change of V_{BR} with temperature		0.88		V/K
	Excess noise factor	M = 100		2.0		
	Excess noise index	M = 100		0.15		

European, International Sales:

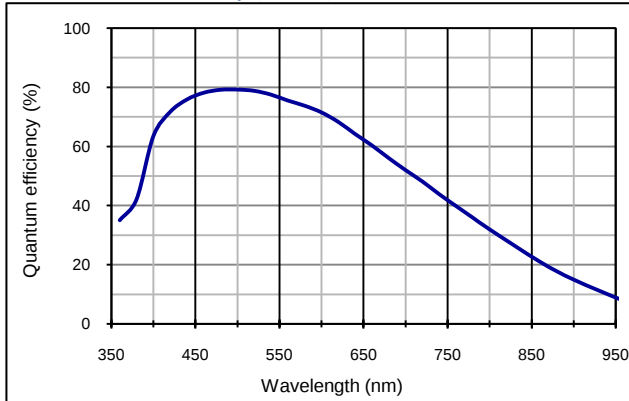
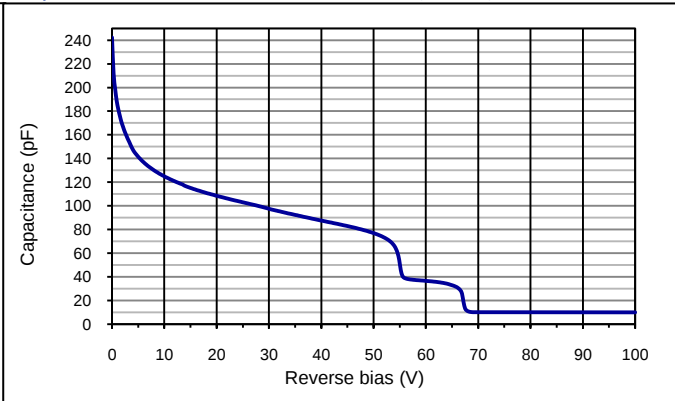
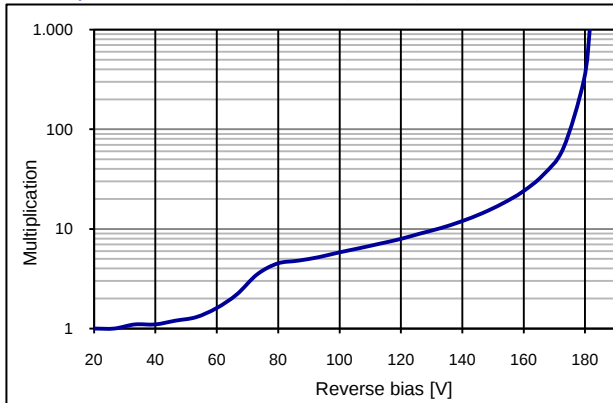
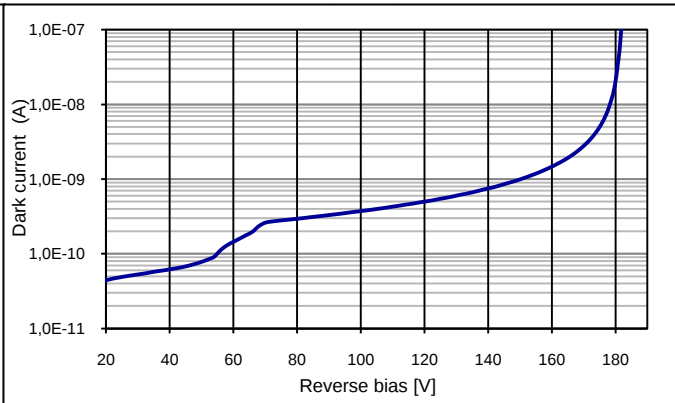
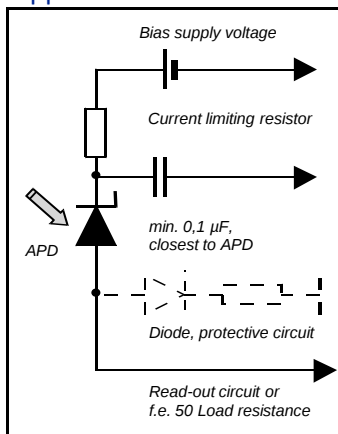


First Sensor AG
Peter-Behrens-Strasse 15
12459 Berlin
Germany
T +49 30 6399 2399
F +49 30 639923-752
sales.opto@first-sensor.com

USA:



First Sensor Inc.
5700 Corsa Avenue #105
Westlake Village
CA 91362 USA
T +1 818 706 3400
F +1 818 889 7053
sales.us@first-sensor.com

Quantum efficiency (23 °C)

Capacitance as fct of reverse bias (23 °C)

Multiplication as fct of bias (23 °C)

Dark current as fct of bias (23 °C)

Application hints:


- Current should be limited by a protecting resistor or current limiting - IC inside the power supply
- For low light level applications blocking of ambient light should be used
- For high gain applications bias voltage should be temperature compensated
- Please consider basic ESD protection while handling
- Use low noise read-out - IC
- For further questions please refer to document "Instructions for handling and processing"
- Optimum gain: 50-80

Package dimension:

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

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

European, International Sales:


First Sensor AG
Peter-Behrens-Strasse 15
12459 Berlin
Germany
T +49 30 6399 2399
F +49 30 639923-752
sales.opto@first-sensor.com

USA:


First Sensor Inc.
5700 Corsa Avenue #105
Westlake Village
CA 91362 USA
T +1 818 706 3400
F +1 818 889 7053
sales.us@first-sensor.com