
**Features**

- Quadrant detector
- Low dark current
- Fast rise time, low capacitance
- High QE at 1064 nm
- Including heater and temperature sensor

**Description**

Circular active area quadrant PIN detector with 14 mm diameter and 70  $\mu\text{m}$  gaps, optimized for 1064 nm. Metal can type hermetic, isolated TO package with ceramic heater and flat clear glass window.

**Application**

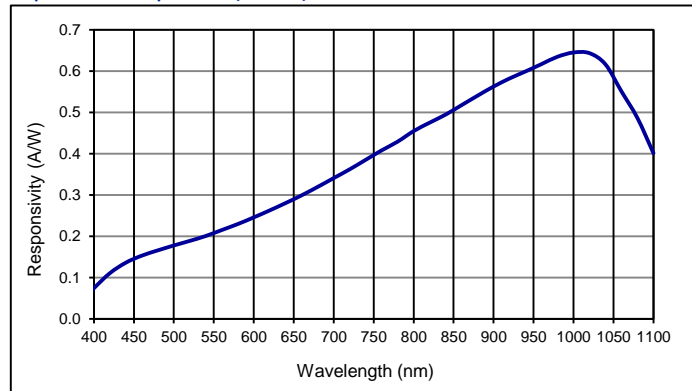
- 1064 nm laser detection
- High speed photometry
- NIR pulsed light sensor
- Laser guidance

**RoHS**

2002/95/EC


**Absolute maximum ratings**

Symbol	Parameter	Min	Max	Unit
$T_{\text{STG}}$	Storage temp	-55	125	$^{\circ}\text{C}$
$T_{\text{OP}}$	Operating temp	-40	85	$^{\circ}\text{C}$
$V_{\text{OP}}$	Operating voltage		250	V
$I_{\text{PEAK}}$	Peak DC current		10	mA

**Spectral response (23  $^{\circ}\text{C}$ )**

**Electro-optical characteristics @ 23  $^{\circ}\text{C}$** 

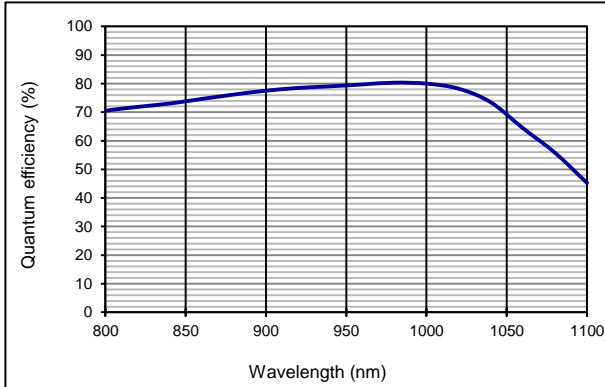
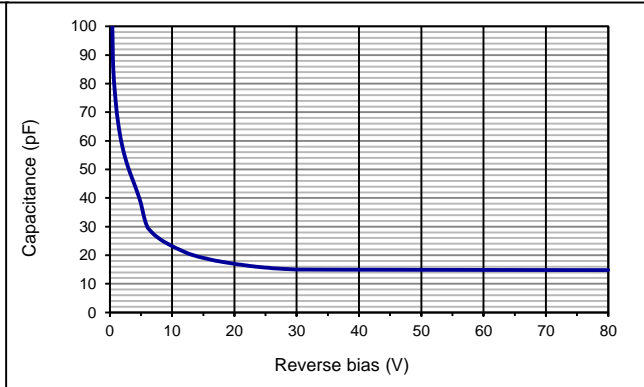
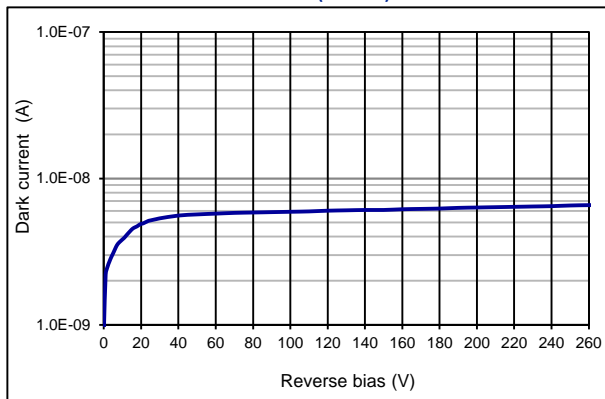
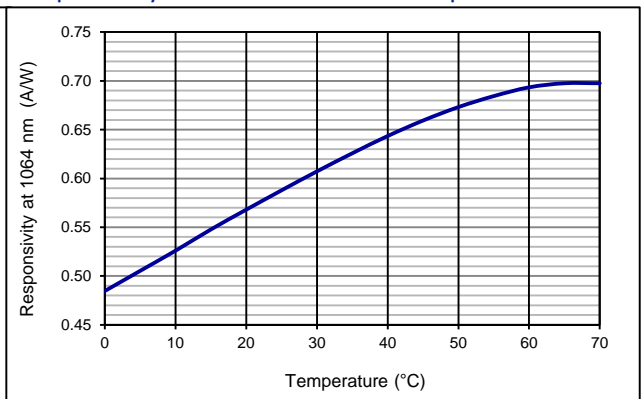
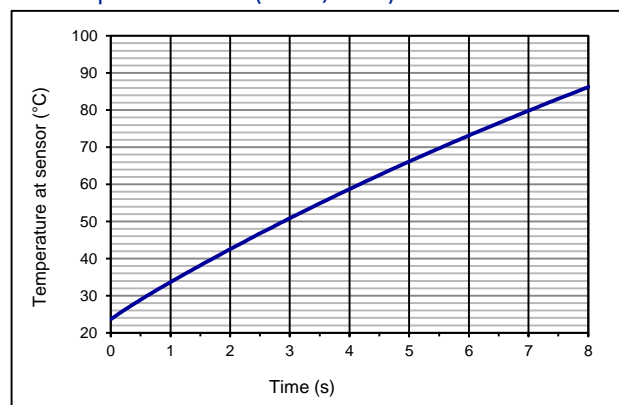
Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	Number of elements		4 quadrants			
	Active area	diameter	14			mm
	Active area	per element	38.5			$\text{mm}^2$
	Gap	between elements	70			$\mu\text{m}$
$I_{\text{D}}$	Dark current	$V_{\text{R}} = 150 \text{ V}$ , per element		10	30	nA
C	Capacitance	$V_{\text{R}} = 150 \text{ V}$ , per element		14	20	pF
	Responsivity	$V_{\text{R}} = 150 \text{ V}$ ; $\lambda = 1064 \text{ nm}$ ; $R_{\text{L}} = 50 \Omega$	0.42	0.48	0.65	A/W
$t_{\text{R}}$	Rise time	$V_{\text{R}} = 180 \text{ V}$ ; $\lambda = 1064 \text{ nm}$ ; $R_{\text{L}} = 50 \Omega$		12		ns
$V_{\text{BR}}$	Breakdown voltage	$I_{\text{R}} = 2 \mu\text{A}$	250			V
	Temperature coefficient	Change of $I_{\text{PH}}$ with temperature		1.07		%/K
	Cross talk	$V_{\text{R}} = 150 \text{ V}$ ; $\lambda = 1064 \text{ nm}$ ; $R_{\text{L}} = 50 \Omega$		2		%
	Heating time	23 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ with 21V power supply	5	6	7	s
	Heater resistance	23 $^{\circ}\text{C}$	36	40	44	$\Omega$
	Temperature sensor	23 $^{\circ}\text{C}$ , Pt resistance temperature detector	85	100	115	$\Omega$

**European, International Sales:**


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**Quantum efficiency (23 °C)**

**Capacitance as fct of reverse bias (23 °C)**

**Dark current as fct of bias (23 °C)**

**Responsivity at 1064 nm as fct of temperature**

**Heater performance (23 °C, 21 V)**

**Package dimension:**

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

**Source of origin:**

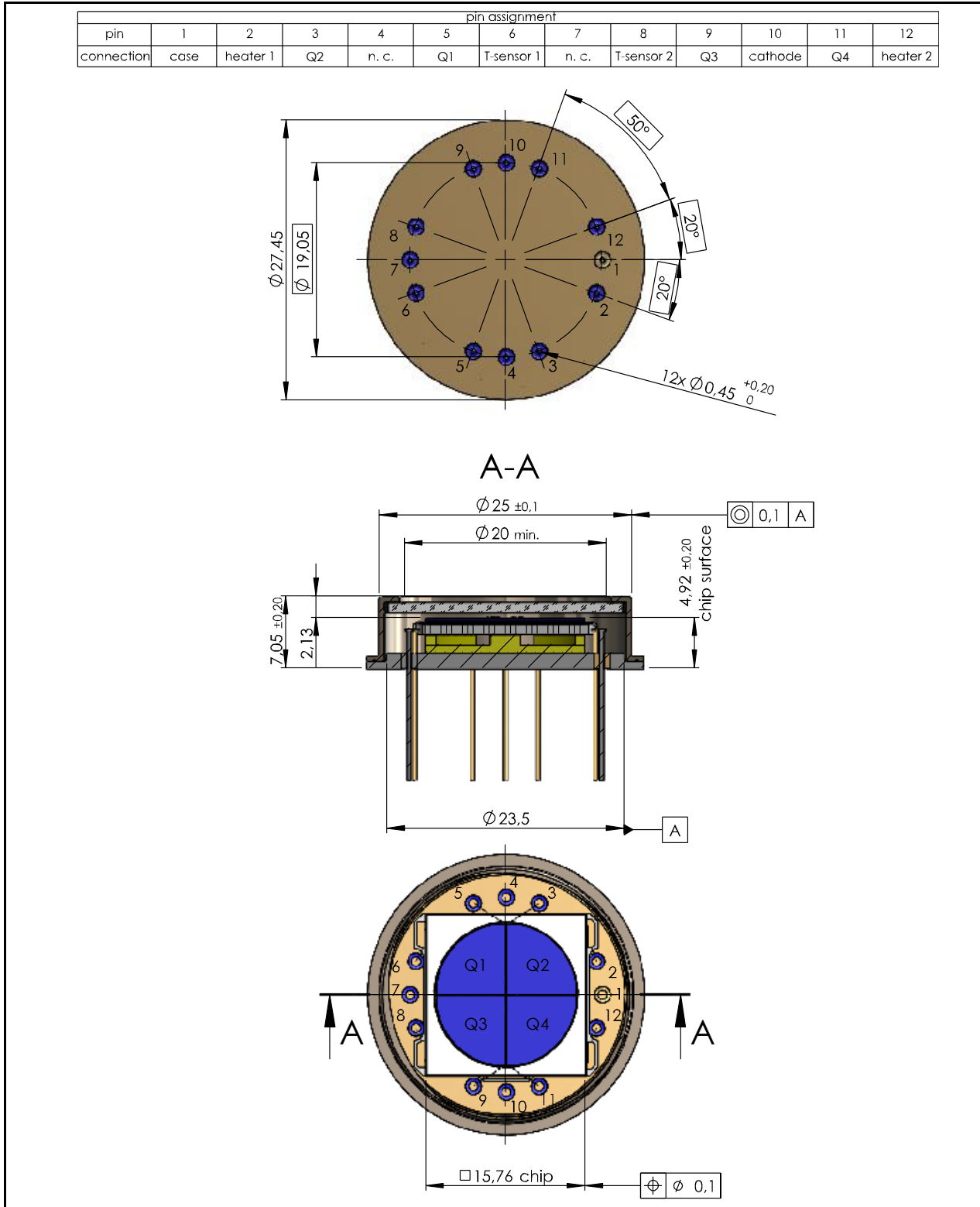
This detector and its components are manufactured in Germany.

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**Technical Drawing**


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

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