

## SSO-AD-500 NIR-TO52-S1 OECA-P302

### Description

The SSO-AD-500 NIR-TO52-S1 OECA-P302 is a Si-APD with a 62.5/125µm pigtail.

### Applications

- Datacom, Ethernet
- General applications

### Features

- 62.5/125/250µm pigtail, length 1.1m



Device can differ from picture.  
For details and pin out please refer to the drawing..

### Absolute Maximum Ratings

( $T_C = 25^\circ\text{C} \pm 2^\circ\text{C}$ )

Parameter	Symbol	min.	max.	Unit
Operating Temperature	$T_{OP} = T_C$	-20	+70	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40	+85	$^\circ\text{C}$
Soldering Temperature / Soldering Time <sup>note 1</sup>	$T_{sold} / t_{sold}$		260/10	$^\circ\text{C/s}$

Note 1: Conditions not specified by manufacturer APD.

### Optical and Electrical Characteristics

( $T_C = 25^\circ\text{C} \pm 2^\circ\text{C}$ )

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Breakdown Voltage <sup>note 3</sup>	$V_{BR}$	$I_D = 2\mu\text{A}$	120		300	V
Total Capacitance <sup>note 2</sup>	$C_T$	$M=100$		1.2		pF
Dark Current <sup>note 2</sup>	$I_D$	$M=100$		0.5	5	nA
Gain	M		200			
Optimum Gain	M			50-60		
Rise Time	$t_R$			550		ps
Spectral Responsivity <sup>note 3</sup>	R	$\lambda = 780 \text{ nm}$	0.55			A/W
Cut Off Frequency	$f_C$			400		MHz
Noise Equivalent Power	NEP	$M=100$ $\lambda = 880 \text{ nm}$		$2 \cdot 10^{-14}$		$(\text{W/Hz})^{1/2}$

Note 2:

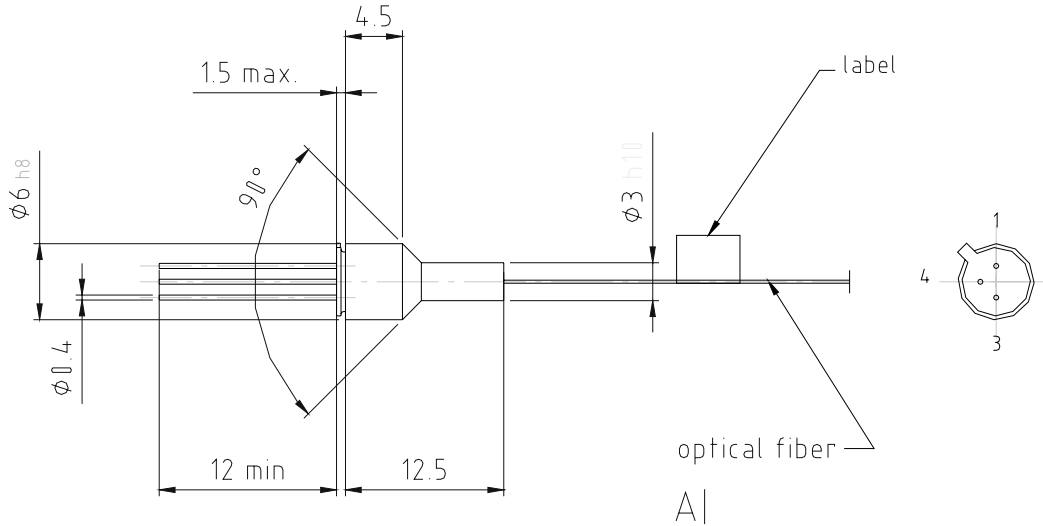
Measurement Conditions

Setup of photo current 10nA at  $M=1$  and irradiation by a NIR-LED (880nm, 80nm bandwidth).

Rise of the photo current up to 1µA, ( $M=100$ ) by internal multiplication due to an increasing bias voltage.

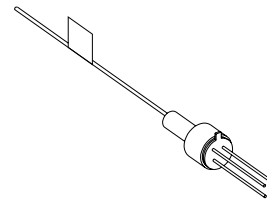
Note 3: Each device is delivered with individually responsivity and breakdown voltage.

## Drawing



A - Optical fiber acc. to specification  
typical length 1,1 m

Pinout acc. to specification  
tolerances acc. to DIN ISO 2768-mH  
all dimensions in mm



### Pin-Out

Pin	SSO-AD500 NIR-TO52-S1
1	Cathode
2	-
3	Anode
4	Case

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