

25Gb/s APD ROSA

WPAAR250FNTCNC

Features

- Standard TO-46 package with hermetic sealing
- Application: 10G/25G/100G Ethernet and OTU-4

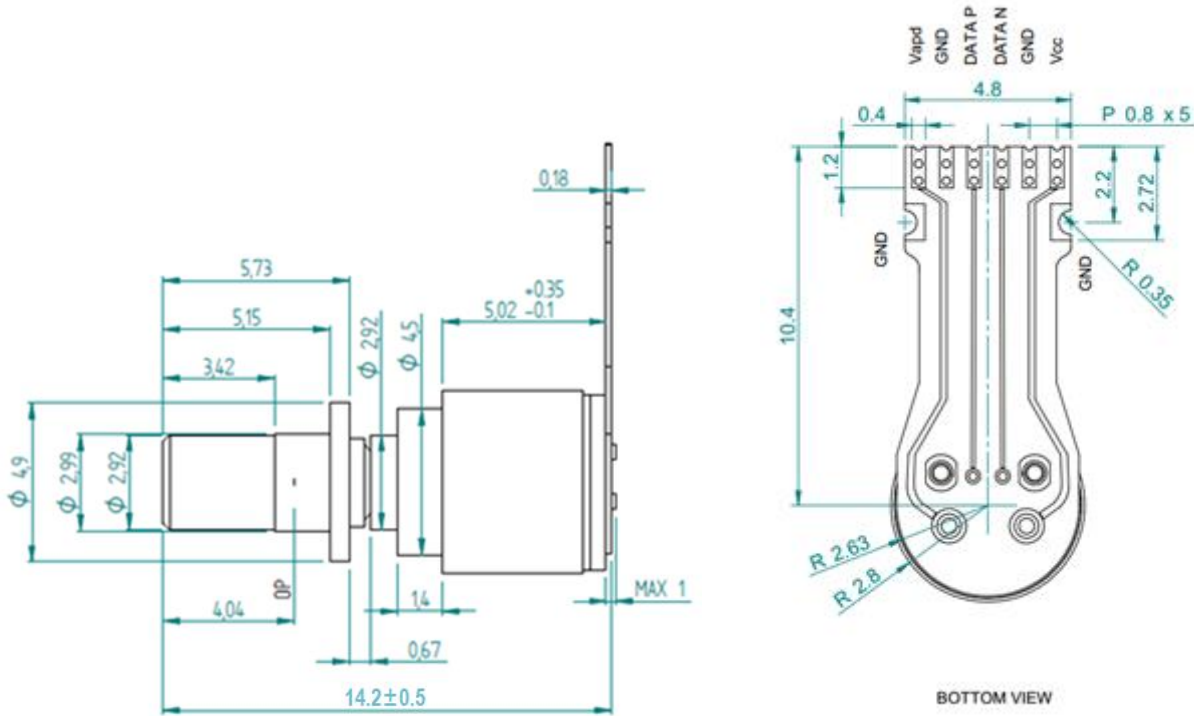
Absolute Maximum Ratings ($T_C=25^\circ\text{C}$, unless otherwise specified)

Parameters	Symbol	Rating	Unit
TIA Supply Voltage	V_{CC}	-0.4 to 4	V
APD Supply Voltage	V_{APD}	0 to V_{BR}	V
APD Reverse Current	I_{APD}	2	mA
APD Damage Level	D_L	0	dBm
Operating Case Temperature Range	T_C	-40 to +85	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +85	$^\circ\text{C}$

Electro-Optical Characteristics ($T_C=25^\circ\text{C}$, unless otherwise specified)

Parameters	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Responsivity	R	1310nm, $1\mu\text{W}$, $0.9\times V_{BR}$		6		μA
Dark current	I_d	$0.9\times V_{BR}$			2.5	μA
Optical Wavelength Range	λ	-	1250		1650	nm
Sensitivity	P_s	25.78Gb/s NRZ, ER=5dB, $\lambda=1310\text{nm}$, PRBS= $2^{31}-1$,	BER= 5×10^{-5}	-23	-21.5	dBm
			BER= 1×10^{-12}	-18	-16.5	dBm
Overload	P_{MAX}		-3			dBm
TIA Supply Voltage	V_{CC}	-	2.9	3.3	3.63	V
TIA Supply Current	I_{CC}	-		24		mA
Breakdown Voltage	V_{BR}	Dark current, $I_d=10\mu\text{A}$	22	28	33	V
Low Frequency Cut-off	f_{CL}	-		100		kHz
Maximum Output Voltage	V_{OUT}	Differential	250	300	350	mV_{p-p}
Output Impedance	Z_O	Single-ended		54		Ω
Temperature Coefficient of V_{BR}	γ	Operating case temperature		15		$\text{mV}/^\circ\text{C}$
Small signal differential transimpedance	SS_{TZ}	1GHz	2.7	4.1	5.6	$\text{k}\Omega$

Mechanical Dimension and Pin Configuration (unit: mm)



Ordering information

WPAAR250FNTCNC

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Specifications described here are subject to change without notice