

2.5Gbps APD ROSA

WPARR025FNTCNC

Features

- Standard TO-46 package with hermetic sealing and LC receptacle
- Optical transceiver applications up to 3.125Gbps

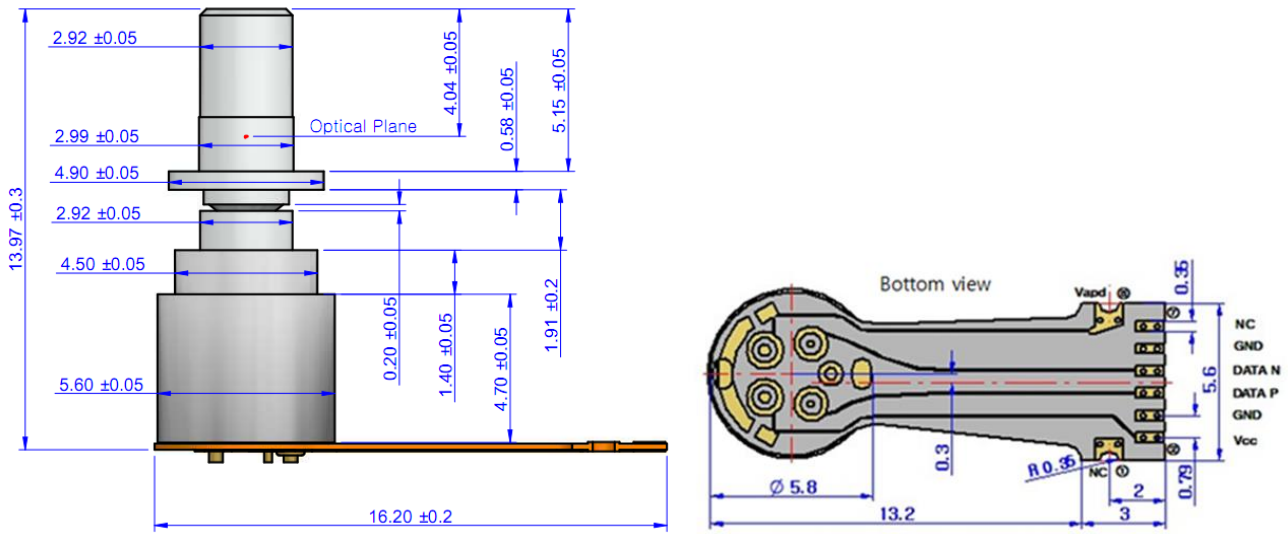
Absolute Maximum Ratings

Parameters	Symbol	Rating	Unit
TIA supply voltage	V_{CC}	-0 to +4	V
APD supply voltage	V_{APD}	0 to V_{BR}	V
APD reverse current	I_{APD}	3	mA
Operating case temperature range	T_C	-40 to +85	°C
Storage temperature range	T_{STG}	-40 to +85	°C

Electro-Optical Characteristics (Typical values are at 25 °C)

Parameters	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Responsivity	R	@ M=1, 1550nm	0.80			A/W
Optical Wavelength Range	λ	-	1100		1650	nm
Sensitivity	P_S	2.5Gbps NRZ, PRBS=2 ³¹ -1, BER=1×10 ⁻¹⁰ , ER=10dB, λ =1550nm		-36	-35	dBm
Overload	P_{MAX}	2.5Gbps NRZ, PRBS=2 ³¹ -1, BER=1×10 ⁻¹⁰ , ER=10dB, λ =1550nm	0			dBm
TIA Supply Voltage	V_{CC}	-	2.97	3.3	3.63	V
TIA Supply Current	I_{CC}	-		43	50	mA
Transimpedance	Z_T	Differential(50 Ω on each output), f=100MHz	12	20		k Ω
Breakdown Voltage	V_{BR}	Dark current, I_d =10 μ A	35	45	55	V
Low Frequency Cut-off	f_{CL}	-		20		kHz
Maximum Output Swing	V_{OUT}	Differential		50		mV _{p-p}
Output Impedance	Z_O	Single-ended		50		Ω
Temperature Coefficient of V_{BR}	γ	Operating case temperature		0.1		V/°C

Mechanical Dimension



Pin Configuration

No.	Pin name	Type	Description
1	NC	-	Not internal connection
2	V _{CC}	Power	TIA supply voltage
3	GND	Ground	Ground
4	DATA	RF+ output	TIA positive output
5	$\overline{\text{DATA}}$	RF- output	TIA negative output
6	GND	Ground	Ground
7	NC	-	Not internal connection
8	V _{APD}	Power	APD supply voltage

Ordering information

WPARR025FNTCNC

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Specifications described here are subject to change without notice