

25Gb/s APD TO-CAN

WPAAB250KNNCNC

Features

- Standard TO-46 package with hermetic sealing
- Application: 25G/100G optical receiver module

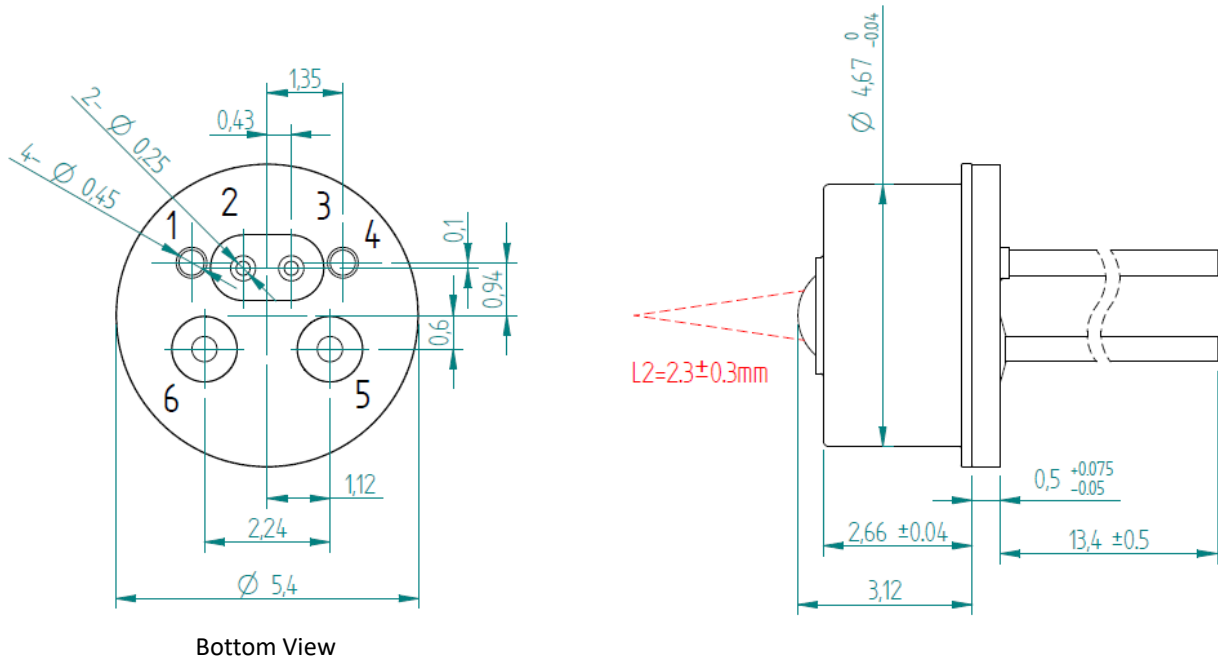
Absolute Maximum Ratings ($T_c=25^\circ\text{C}$, unless otherwise specified)

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	L_D	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, $1\mu\text{W}$, $0.9V_{BR}$	4	6		A/W
Dark current	I_D	$V_{BR}=10\mu\text{A}$			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}	-	2.97	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		30		mV/ $^\circ\text{C}$
Small signal differential transimpedance	SS_{TZ}	1GHz	2.7	4.1	5.6	k Ω

Mechanical Dimension (unit: mm)



Pin Configuration

No.	Pin name	Type	Description
1	GND	Ground	Ground
2	DATA	RF+ output	TIA positive output
3	$\overline{\text{DATA}}$	RF- output	TIA negative output
4	GND	Ground	Ground
5	V _{CC}	Power	TIA supply voltage
6	V _{apd}	Power	APD supply voltage

Ordering information

WPAAB250KNNCNC

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Specifications described here are subject to change without notice