

1310/1490 nm 2.5Gbps 5-Pin APD TO-CAN

Part No: TOPD-4301-XXXX1

1 Description

This component is designed for GPON ONU high-speed and long wavelength optical data communication. It is packaged with a AGC pre-amplifier in TO-46 header and a 1.5mm ball lens cap ;

2 Application

- GPON ONU receiver;
- Data communication

3 Feature

- 1260-1620nm wavelength;
- High-sensitivity with AGC.
- Different ended output .
- High performance and reliability.



5 Electro-Optical Characteristics (T = 25°C, unless noted otherwise)

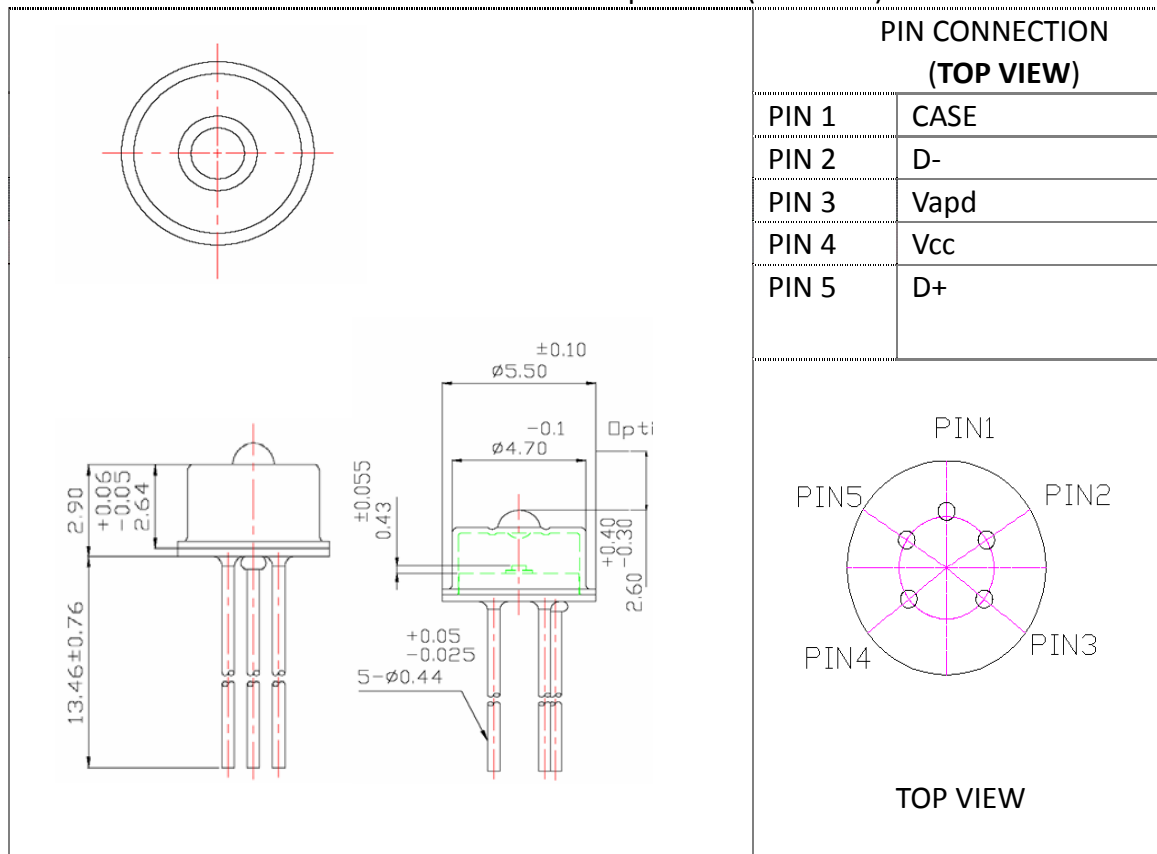
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Power Supply	Vcc	---	3	3.3	3.6	V
Supply Current	Icc	no loads	---	20	---	mA
Apd BreakDown Voltage	Vbr	Id=10uA, TC=25°C	38	48	55	V
Differential Responsivity	Rd	Rload = 100ohm,	---	---	40	mV/μW
Single Ended Responsivity	Rs	Rload = 50ohm,	---	---	20	mV/μW
Small-Signal Bandwidth	BW	---	730	---	---	MHz
Saturation Power	Psat	---	-7	---	---	dBm
Single Ended Output Impedance	Ro	---	---	50	---	Ohm
Wavelength	λc	---	1260	---	1620	nm
Responsivity	R	λ=1490nm, Vbr=-10V	0.70			uA/uw
Sensitivity	Sen	λ=1490nm; 2.488Gbps, PRBS223 -1; BER=10-10, ER=10dB	---	---	-31	dBm
Lens to Fiber	LF	---	2.2	2.5	2.8	mm

4 Absolute Operation Environment

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	Tst	-40	95	°C
Operating Temperature	Top	-40	85	°C
Lead solder Temperature		260°C 10s max		

6 Outline Specification

All dimensions are $\pm 0.1\text{mm}$ unless otherwise specified. (unit: mm)



7 Warning



ESD prevention

7.1 Static Electric Safety Cautions:

The optoelectronic devices are sensitive to static electricity (ESD, electro-static discharge). The product can be broken by ESD. When handling this product, please observe the following countermeasures against Static Electricity and Surge:

- 1) Ground all equipments, machinery jigs, and tools in the process line with earth wires;
- 2) Workers should always use earth bands;



- 3) Humidity in working environment should be controlled to be 40 percent RH or higher
- 4) Use conductive materials for this product's container, etc;
- 5) Ground the mat on the workbench and keeping it in order by scheduled checking
It is extremely important to prevent surge, eliminate it rapidly, and prevent it from spreading.

8 Part No. Assigned

TOPD-4 3 0 1-XX XX 1

A B C D E F G H

Series No	Description
A:TOPD	FIXED: LASER DETECTOR
B:OPERATING RATE	1:155mhz/2:622mhz/3:1.25G/4:2.5G /5:10G
C:PIN-TYPE	1:4-PIN PIN-TIA/2:5PIN PIN -TIA/ 3.5PIN APD-TIA
D:WAVE LENGTH	0:1260-1620nm/1: 1310nm/2:1550nm
E:CAP TYPE	1:short cap 2.64H 2:long cap 3.50H
F:PIN OR APD TYPE	INTERNAL USED ONLY
G:TIA TYPE	INTERNAL USED ONLY
H:OPERATING TEMP RANGE	1:-40+85C 2:-20+70

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