

2.5Gbps InGaAs APD-TIA TO-CAN

Model: AAIT2500T05BL-A-3



Features:

- Bit rate up to 2.5Gb/s, compatible with 1.25Gb/s
- High sensitivity
- Wide temperature range from -40°C to +85°C
- Suitable for long distance applications

Product Specifications:

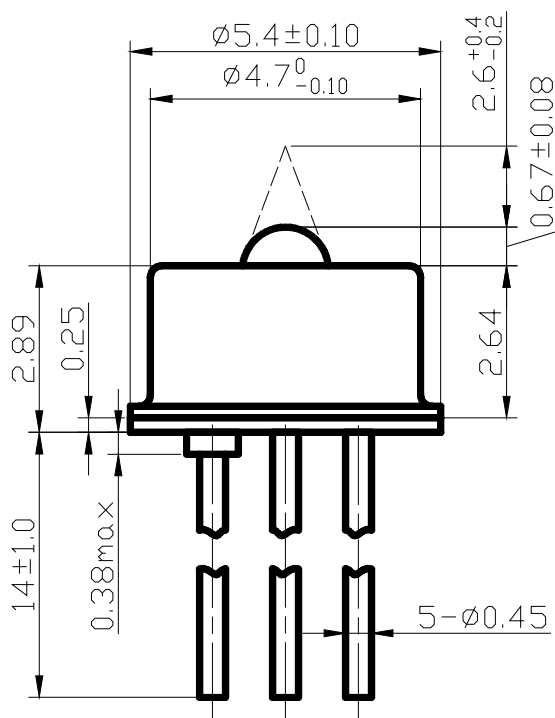
Absolute Maximum Ratings (T=25°C)

Parameter	Symbol	Unit	Min	Max	Note
APD Reverse Current	I _r	mA		2	
APD Reverse Voltage	V _r	V		V _{br}	
Power Supply Voltage	V _p	V	-0.4	4	
Operating Temperature	T _{OP}	°C	-40	85	
Storage Temperature	T _{syg}	°C	-40	100	
Solder Reflow Temperature	T _{sld}	°C		260	10 seconds max

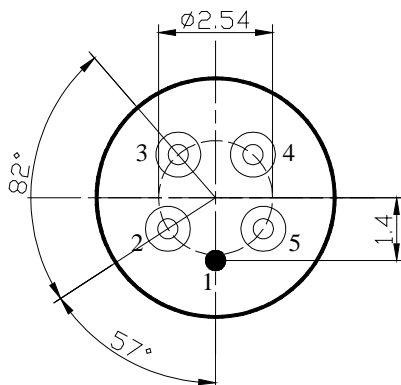
Electro-Optical Characteristics (T=25°C, unless noted otherwise)

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Supply Voltage	V _{cc}	Volts	3.0	3.3	3.6	
Supply Current	I _{CC}	mA	38	43	50	No load
Breakdown Voltage	V _{br}	V	38	45	53	I _d =10μA, V _{cc} off
Dark Current	I _d	nA	—	—	20	V _r =V _{br} -3
Wavelength Range	λ	nm	1100	—	1650	
Saturated Optical Power	P _{sat}	dBm	-6	—	—	2.5Gb/s, λ=1490nm ER=9, BER=10 ⁻¹⁰ PRBS=2 ²³ -1, V _r =V _{br} -3
Responsibility	R	A/W	0.85	—	—	λ=1490nm, M=1
-3dBm Bandwidth	BW	MHz	1400	—	—	R _L = 50 Ω
Sensitivity	Sen	dBm	—	-34	-33	2.5Gb/s, λ=1490nm ER=9, BER=10 ⁻¹⁰ PRBS=2 ²³ -1, V _r =V _{br} -3

Outline Drawings (in mm):



PIN-OUT



Bottom View

Pin-out Assignment	
Number	"05"
1	Gnd
2	DOUT(+)
3	V _{CC}
4	V _{APD}
5	DOUT(-)



Ordering information:

AAIT2500TXXBL-A-3

AIT=APD-TIA

2500=2.5Gbps

05=Pin-out, see table

BL=TO52 cap

-A= Height 2.64mm

-3=TIA type, MO2029

If the focus is inappropriate, Please contact us. We can change the focus within a certain range.

Precaution:

- (1) The modules should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.