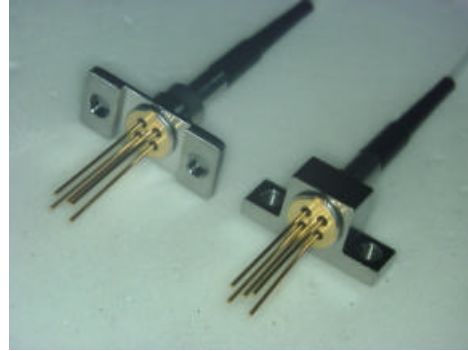


OF3600B-C2**Preliminary****156Mbps APD -preamplifier coaxial module with single mode fiber****1. DESCRIPTION**

OF3600B-C2 is an optical receiver module for digital transmission systems up to 156Mbps. It uses an InGaAs avalanche photodiode with a low noise preamplifier. Package style is a hermetically sealed coaxial package with single mode fiber pigtail.

2. FEATURES

Data rate up to 156Mbps
 High responsivity InGaAs-APD : 8.5A/W
 Wide dynamic range
 Typical sensitivity : -47.5dBm
 Low noise
 Small coaxial package

**3. APPLICATION**

SONET OC-3/SDH STM-1 applications
 Long-haul transmission systems up to 156Mbps

4. OPTICAL AND ELECTRICAL CHARACTERISTICS

(Wavelength=1310nm , Ta =25°C , VDD=3.3V, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Wavelength	λ	-	1250	- -	1620	nm
APD Breakdown Voltage	VBR	ID=10 μ A	40	60	80	V
Temperature Coefficient of VBR*	γ	-	0.10	0.15	0.25	%/°C
APD Responsivity	RAPD	$\lambda=1.55\mu\text{m}$, VB=35~78V, M=10	8.0	8.5	- -	A/W
		$\lambda=1.31\mu\text{m}$, VB=35~78V, M=10	7.5	8.5	- -	
Responsivity	R	RL>500 Ω , M=10, Pin=-45dBm, Differential	160	200	- -	kV/W
Bandwidth	BW	f3dB, RL>500 Ω , M=10	120	- -	- -	MHz
Sensitivity	Prmin	155.52Mbps, NRZ, BER=10 ⁻¹⁰ , PRBS2 ⁻²³ -1, M=Mopt.	- -	-47.5	-46.5	dBm
Overload	Prmax	155.52Mbps, NRZ, BER=10 ⁻¹⁰ , PRBS2 ⁻²³ -1, M=3	-7	-5	- -	dBm
Supply Current	IDD	Pin = 0mW	- -	19	24	mA
Recommended TIA Supply Voltage	VDD	-	3.0	3.3	3.6	V
Optical Return Loss	ORL	-	- -	- -	-27	dB

*) Temperature Coefficient of Breakdown Voltage.

$$\gamma = \frac{V_B(25^\circ\text{C} + \Delta T^\circ\text{C}) - V_B(25^\circ\text{C})}{V_B(25^\circ\text{C}) \cdot \Delta T^\circ\text{C}} \times 100 (\% / ^\circ\text{C})$$

5.ABSOLUTE MAXIMUM RATING

(Ta = 25 °C, unless otherwise specified)

Parameter	Symbol	Rating	Unit
APD Supply Voltage	VR	0 to VBR	V
TIA Supply Voltage	VDD	4.5	V
APD Forward Current	IF	4	mA
APD Reverse Current	IR	1(cw)	mA
Operating Temperature	Top	-40 to +85	°C
Storage Temperature	Tstg	-40 to +85	°C

6. CONNECTOR AND FIBER SPECIFICATIONS

Parameter	Specifications	Unit
Type	SM	- -
Mode Field Diameter	10	µm
Cladding Diameter	125	µm
Jacket Diameter	900	µm
Length	1 (Min.)	m
Connector	FC/PC or SC/PC	- -

7.ORDERING INFORMATION

OF3600 B - C2 - _ _ _ _ ex.) OF3600B-C2-AFFC

Fiber

B: SM

Flange

AF: Angled

SF: Straight

Connector

FC

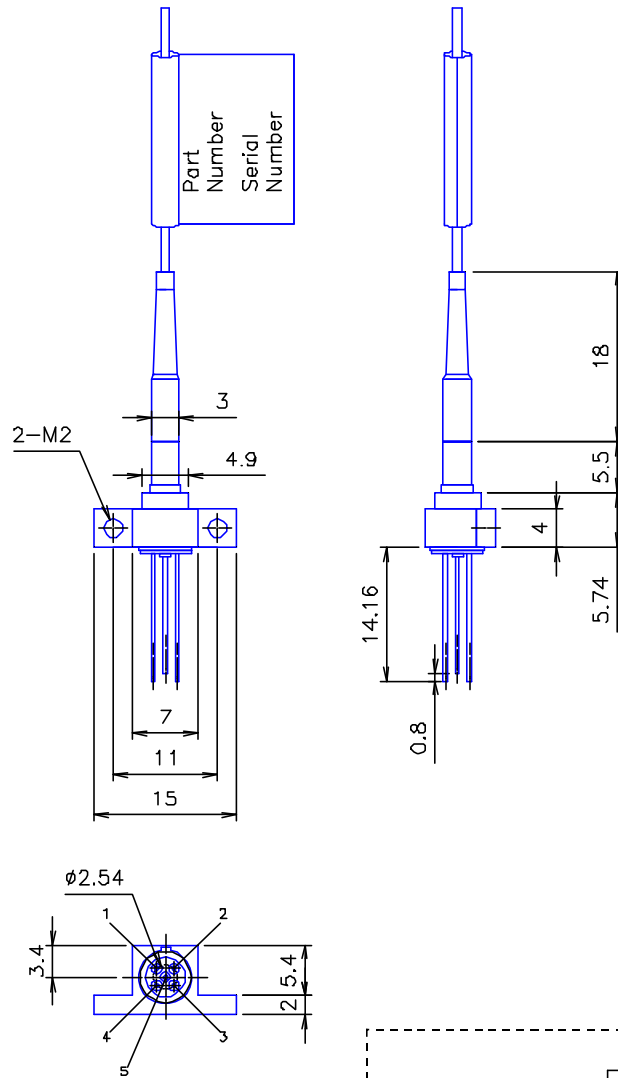
SC

OF3600 with SM fiber, angled flange,
and FC connector.

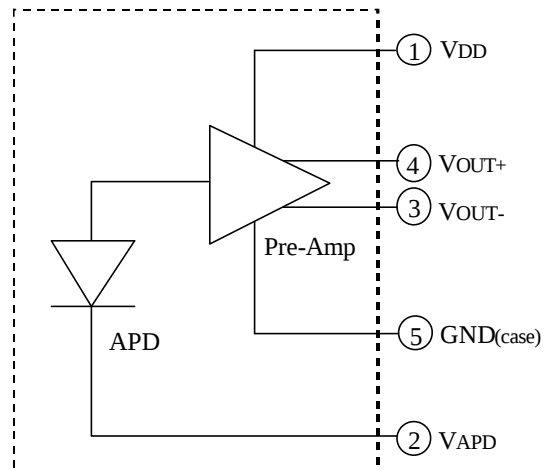
8.OUTLINE DRAWING

All dimensions in millimeters

Package No. OF3600B-C2-AF__ (Unit: mm)

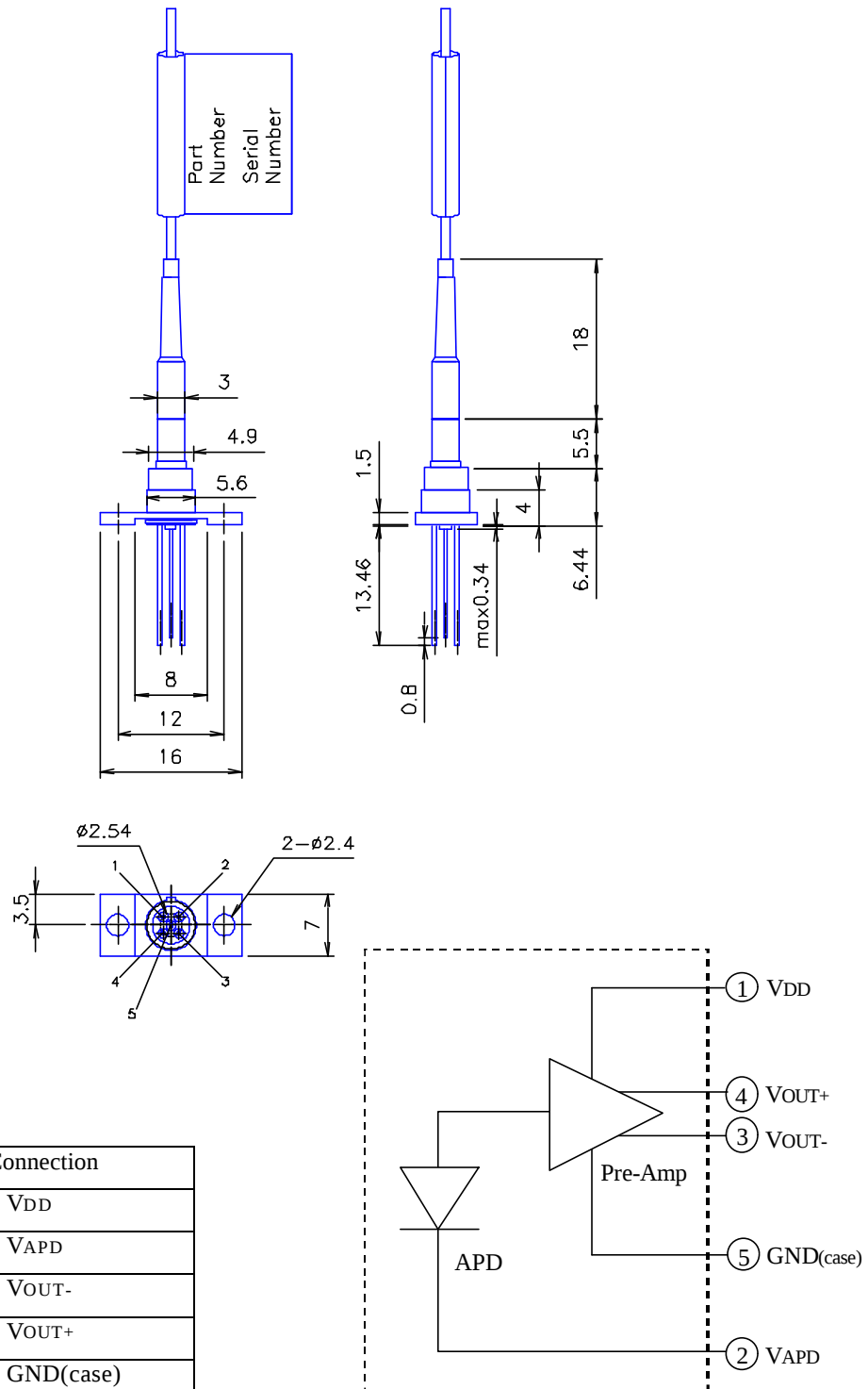


Pin Connection	
1	VDD
2	VAPD
3	VOUT-
4	VOUT+
5	GND(case)



All dimensions in millimeters

Package No. OF3600B-C2-SF__ (Unit: mm)



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