

OF3603N-F5

1310 nm SMT Avalanche Photo Diode Module with Single Mode Fiber

GENERAL DESCRIPTION

The surface mount type APD-Preamplifier module is a avalanche photo diode coupled to a single mode fiber with a pigtail. It is designed for STM16/OC48.

ABSOLUTE MAXIMUM RATINGS

(Ta = 25°C, unless otherwise noted)

Parameter	Symbol	Rating	Unit
Supply Voltage	V _{cc}	+6	V
Maximum Input Power	P _{omax}	+2	dBm
Forward Current	I _F	5	mA
Reverse Current	I _R	0.5	mA
Operating Case Temperature	T _{op}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +85	°C
Lead Soldering Temperature	—	260 (10 sec.)	°C

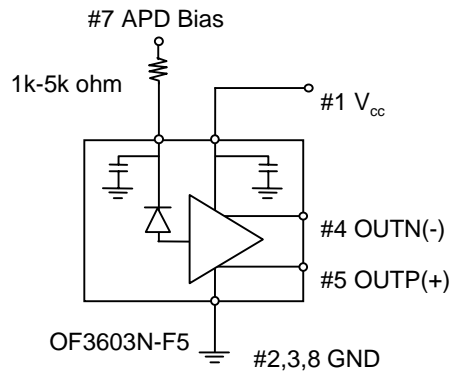
OPTICAL AND ELECTRICAL CHARACTERISTICS

(Ta = -40 to 85°C, V_{cc} = +3.3V, λ = 1310 nm, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Supply Current	I _{cc}	—	—	41	—	mA
Reverse Breakdown Voltage	V _{BR}	I _D = 10 μA	40	70	90	V
Temperature Efficiency of V _{BR}		-40 to +85 °C	—	0.20	—	%/°C
Dark Current	I _D	V _R = V _{BR} × 0.9	—	20	—	nA
Sensitivity		10 ⁻¹⁰ BER (Note 1), M = 10	-30	-33	—	dBm
Over Load		Note 2	-6	—	—	dBm
Bandwidth	BW	-3 dB, Pin = -30 dBm, Fr = 3MHz	—	1.6-	—	GHz
Responsivity		Differential, Pin = -30 dBm, M = 10	—	210	—	kV/W
Maximum Output Voltage		Differential	—	300	—	mV _{pp}

Note:1) Data rate:2.5G bps;data sequence:PRBS 2²³-1

Note 2: In the case that you put a resistance outside of module with 1K-5K ohm in serial, you can get -6 dBm.

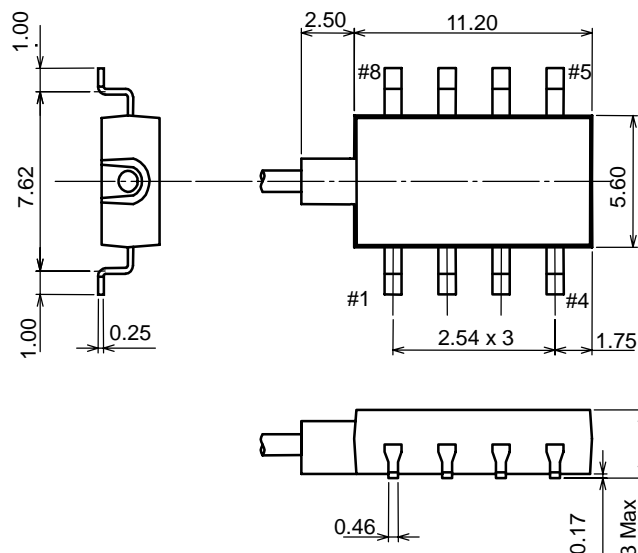


CONNECTOR AND FIBER SPECIFICATIONS

Parameter	Specifications	Unit
Type	SM	—
Mode Field Diameter	9 ±1	mm
Code Diameter	0.9	mm
Bending Radius	20 (min)	mm
Length	Options	—
Connector	FC, SC, MUJ, etc.	—
Color	Blue	—

OUTLINE DRAWING

All dimensions in millimeters
 Package No. (Unit: mm)



Pin Descriptions

No.	Function
1	V _{cc}
2	GND
3	GND
4	OUTP(-)
5	OUTN(+)
6	NC
7	APD Bias
8	GND

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