

OD8612B, OD8612D**Preliminary****2.5Gbps PIN-Preamplifier Receiver Coaxial Module****GENERAL DESCRIPTION**

OD8612 series are optical receiver modules that use an InGaAs PIN photodiode with a low noise Pre-Amplifier. Package style is a hermetically sealed coaxial package with single or multi mode fiber pigtail. These receiver modules were designed especially for short haul 2.5Gbps SONET/SDH applications.

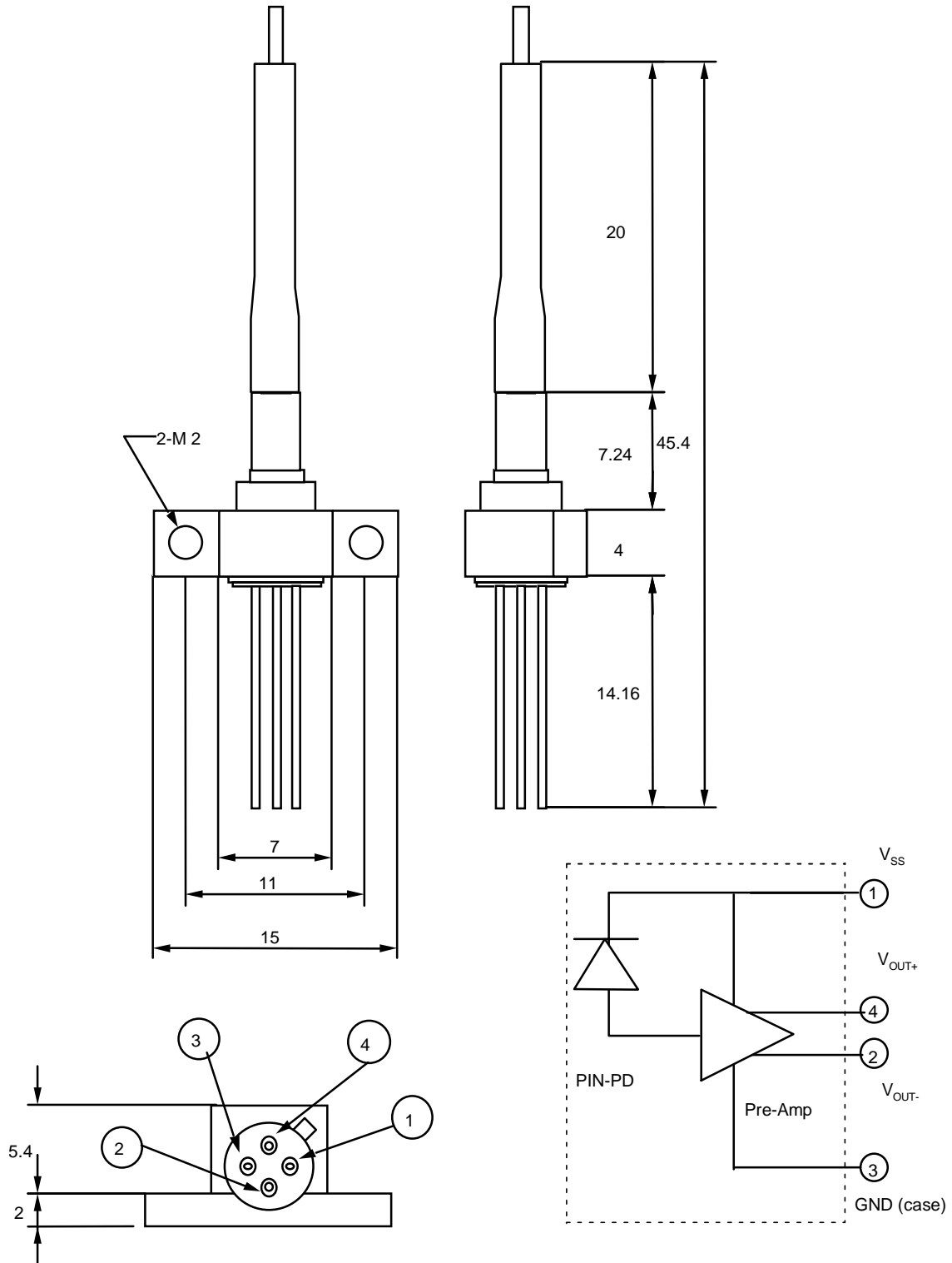
FEATURES

- Single 3.3 V supply
- Low noise: NEPo 0.8 μ Wrms (Max.)
- Automatic gain control
- Sensitivity: -24 dBm (Typ.)
- Differential output: 100 Ω Load

APPLICATIONS

- Digital optical transmission receivers
- Short haul 2.5Gbps SONET/SDH receivers

PACKAGE DIMENSIONS



Note 1: Unit = mm
 Note 2: Fiber hood dimension is provisional.

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Condition	Ratings	Unit
Supply Voltage	V_{SS}	Ta = 25°C	5.5	V
Incident Optical Power	P_O		0	dBm
Operating Case Temperature	T_{OP}	—	-20 to +85	°C
Storage Temperature	T_{STG}	—	-40 to +85	°C

OPTICAL AND ELECTRICAL CHARACTERISTICS(V_{SS} = 3.3 V, Wavelength = 1310 nm & Top = 25°C, unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Wavelength	λ	—	1270	—	1620	nm
Sensitivity	PRL	RL = 100 Ω , 2500Mb/s, NRZ PRBS2 ³¹ -1, Ber= 10 ⁻¹²	—	-24	-21	dBm
Dynamic Range	Dr	—	18	21	—	dB
Bandwidth	BW	RL = 100 Ω , Pin = -17dBm -3 dB from 10 MHz	1500	1800	—	MHz
Differential Responsivity	Rd	RL = 100 Ω , Pin = -17dBm	1.1 ^{*1} 1.0 ^{*2}	1.6 ^{*1} 1.4 ^{*2}	—	kV/W
Input Noise Equivalent Optical Power	NEP _o	BW = 3000 MHz, Pin = 0 mW	—	—	0.8	μ W RMS
Recommended Supply Voltage	V _{ss}	—	3.0	3.3	3.6	V
Supply Current	I _{ss}	Pin = 0 mW	—	—	50	mA

*1:OD8612B,*2:OD8612D

FIBER PIGTAIL SPECIFICATIONS**•OD8612B**

Parameter	Specifications	Unit
Type	SM	---
Mode Field Diameter	10	μ m
Cladding Diameter	125	μ m
Jacket Diameter	900	μ m
Length	1 (Min.)	m

•OD8612D

Parameter	Specifications	Unit
Type	MM	---
Mode Field Diameter	50	μ m
Cladding Diameter	125	μ m
Jacket Diameter	900	μ m
Length	1 (Min.)	m

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