

OD8720B, OD8720D**Preliminary****1.3 μm Band Selective 622Mbps PIN-Preamplifier Receiver Coaxial Module****GENERAL DESCRIPTION**

OD8720 series are optical receiver modules that use a 1.3 μm band selective InGaAsP 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 bidirectional 1.3 μm /1.55 μm systems, and can detect 1.3 μm signals selectively under the 1.55 μm background stray light, with isolation ratio greater than 30 dB.

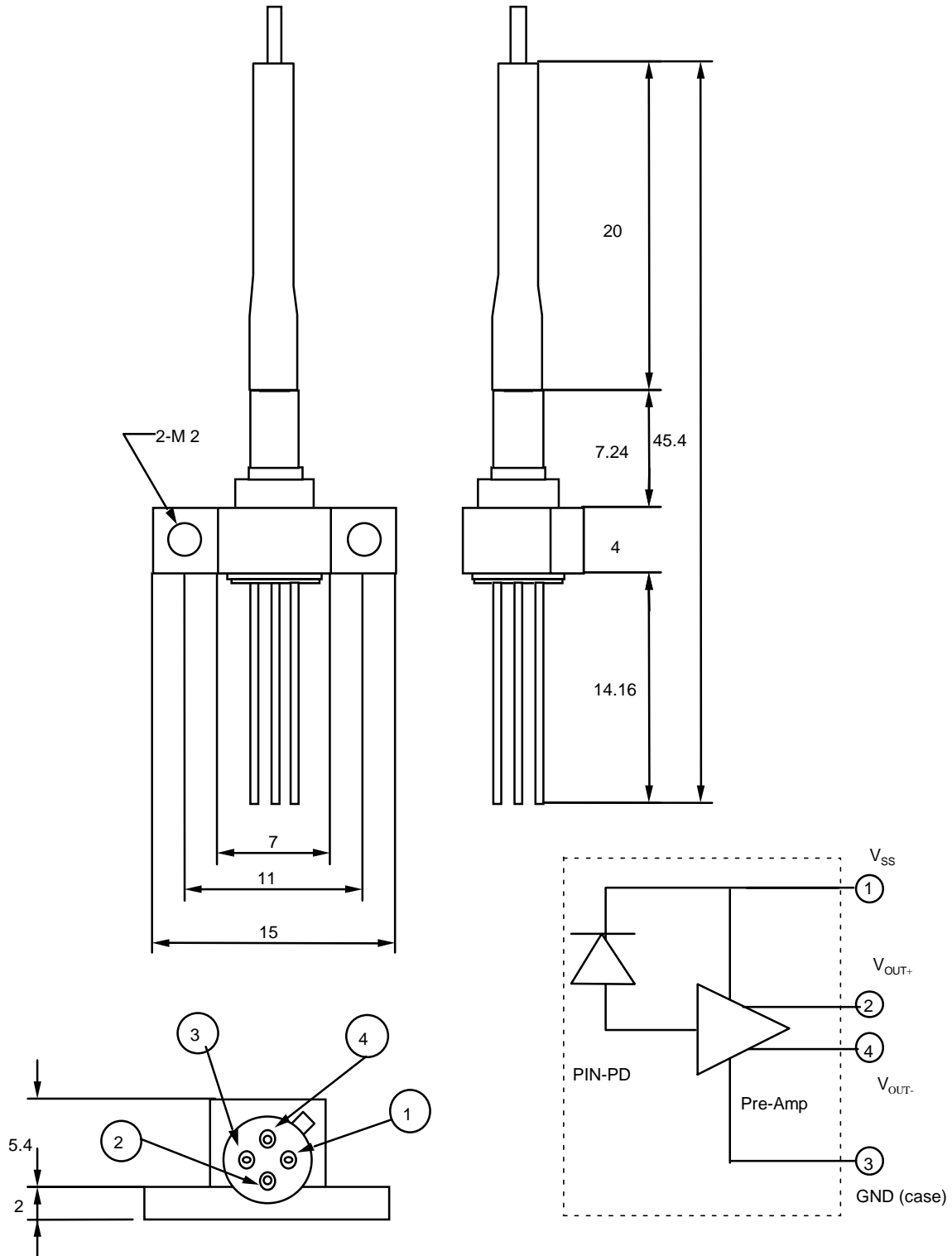
FEATURES

- Single 3.3 V supply
- Low noise: NEPo 73 nWrms (Typ.)
- Automatic gain control
- Sensitivity: -32 dBm (Typ.)
- 1.3 μm band selective ratio: 30 dBm (as compared with 1.55 μm)
- Differential output: 100 Ω Load

APPLICATIONS

- Digital optical transmission receivers
- 622Mbps SONET/SDH/ATM-PON 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		-3	dBm
Operating Case Temperature	T_{OP}	—	-20 to +85	°C
Storage Temperature	T_{STG}	—	-40 to +85	°C

OPTICAL AND ELECTRICAL CHARACTERISTICS

(VSS = 3.3 V, Wavelength = 1310 nm & Top = 25°C, unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Wavelength	λ	—	1270	—	1350	nm
Sensitivity	PRL	RL = 100 Ω , 622Mb/s, NRZ PRBS2 ³¹ -1, BER10 ⁻¹⁰	—	-32	-30	dBm
Dynamic Range	Dr	—	22	—	—	dB
Bandwidth	BW	RL = 100 Ω , Pin = -25 dBm	450	530	—	MHz
Differential Responsivity	Rd	RL = 100 Ω , Pin = -25 dBm	3.5	5	—	kV/W
Input Noise Equivalent Optical Power	NEP _O	BW = 470 MHz, Pin = 0 mW	—	73	—	nW RMS
Recommended Supply Voltage	V_{SS}	—	3.0	3.3	3.6	V
Supply Current	I_{SS}	Pin = 0 mW	10	25	37	mA

FIBER PIGTAIL SPECIFICATIONS**•OD8720B**

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

•OD8720D

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

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