

preliminary

**622Mbps
PIN Photodiode – Preamplifier Coaxial Module
with Single/Multi Mode Fiber**

OD8615B/D

3rd Issued: JUN. / 30/ 01
2nd Issued: MAY. / 9/ 00
1st Issued: JAN. / 24/ 00

Receipt

Drawing Number : JOG-00723
Revision 3
OD8615B/D
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Oki Electric Industry Co.,Ltd.

1. Description

OD8615B/D is an optical receiver module for digital transmission systems up to 622Mbps. It uses an InGaAs PIN photodiode with a low noise Pre-Amplifier. Package style is a hermetically sealed coaxial package with single/multi mode fiber pigtail.

2. Absolute Maximum Ratings

(Ta=25 °C,unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Supply Voltage	V _{SS}	6.5	V
Incident Optical Power	P _O	0	dBm
Operating Temperature	T _{op}	-40 to +85	°C
Storage Temperature	T _{stg}	-40 to +85	°C

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3. 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
Recommended Supply Voltage	V _{ss}		3.0	3.3	3.6	V
Wavelength	λ		1270	--	1620	nm
Low Frequency Cutoff	f _c	-3 dB, Pin=-25dBm	--	--	100	kHz
Sensitivity	P _{RL}	BER 10 ⁻¹⁰ , 622 Mb/s	--	-32	-30	dBm
Overload	P _{RH}	BER 10 ⁻¹⁰ , 622 Mb/s	-5	--	--	dBm
Single Ended Output Impedance	Z _{out}		40	50	60	Ω
Bandwidth	BW	-3dB, Pin=-25dBm	400	470	--	MHz
Differential Output Voltage	V _d	R _L =100 Ω Pin=-5dBm	--	260	450	mV
Differential Responsivity	R _d	R _L =100 Ω , Pin=-25dBm	--	6 ^{*1} 5.5 ^{*2}	--	kV/W
RMS Noise Referred to Input	In	BW=470 MHz, Pin=0mW	--	60		nA RMS
Supply Current	I _{ss}	Pin=0mW	--	21	30	mA

*1:OD8615B,*2:OD8615D

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4. Fiber Pigtail Specifications

Parameter	Specifications		Unit
Part#	OD8615B	OD8615D	
Type	SM	MM	---
Mode Field Diameter	10	50	μm
Cladding Diameter	125		μm
Jacket Diameter	900		μm
Length	1 (Min.)		m
Connector	FC/PC or SC/PC		---

5. Package

OD8615

<u> </u>	-	<u> </u>	<u> </u>
<u>Fiber</u>		<u>Flange</u>	<u>Connector</u>
B: SM		AF: Angle	FC
D: MM		SF: Straight	SC

ex.) OD8615B-AFFC
 OD8615 with SM fiber, angled flange,
 and FC connector.

6. Accompanied Data

The following test data shall be packaged with each module.

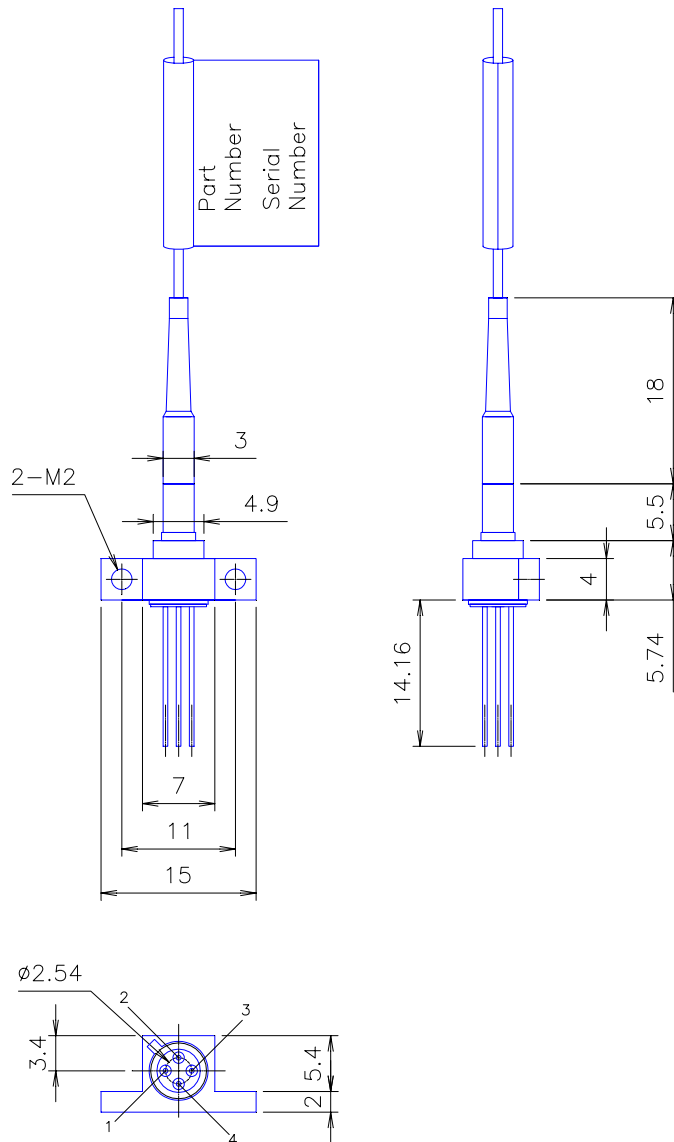
- Oki part number
- Lot number
- Serial number
- Differential Responsivity

V_{ss}=3.3 V, R_L=100Ω, P_{in}=-25dBm, Wavelength=1310 nm

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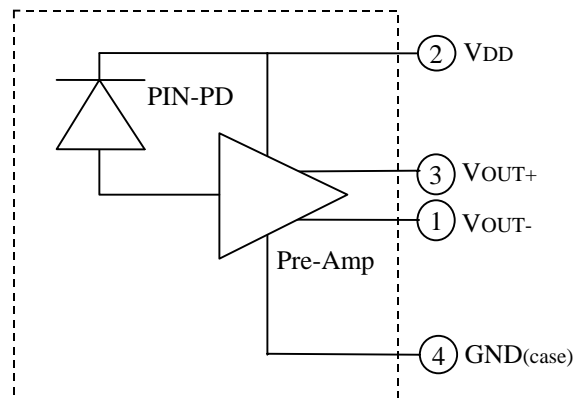
7. Package Outline Drawing

(1)OD8615B - AF



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

note 1: Unit = mm



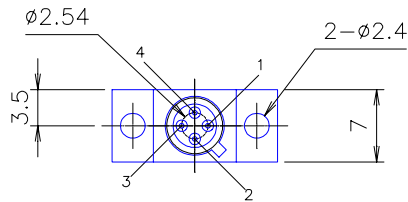
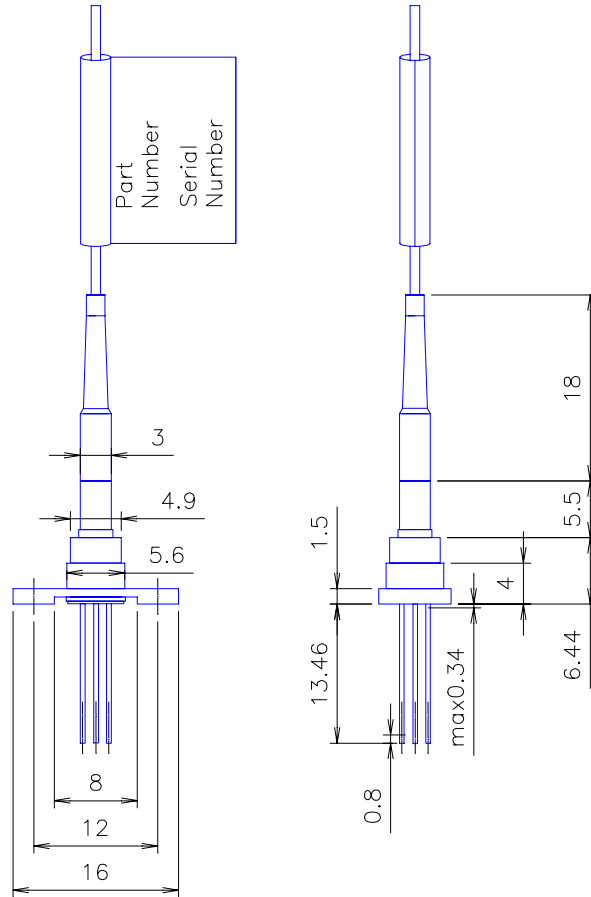
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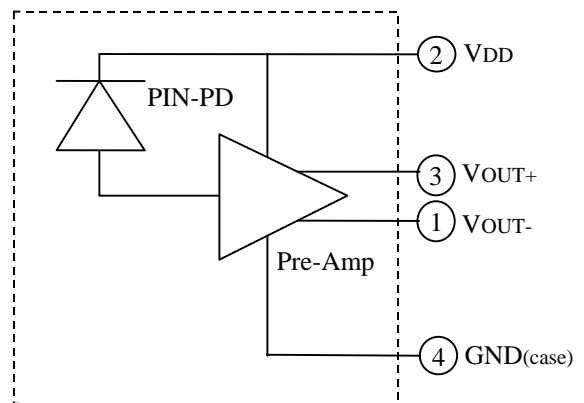
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(2)OD8615B – SF



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

note 1: Unit = mm



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