

# 1310 nm DFB 1.25G Laser Diode Module With Pigtail Connection and FC/APC

Data Sheet

OLD3335-H5-AFC

## Features

- Uncooled
- Single Isolator
- Type C laser
- Low threshold current
- Horizontal flange
- Single Isolator
- Power Output: 1mW
- 1310nm InGaAsP/ InP DFB laser diode
- High speed InGaAs monitor PIN photodiode
- Singlemode fiber with FC/APC connector
- Operating Temperature: -40 ~ +85°C

## Applications

- Digital Signal Transmission
- Telecommunications (Local loop, interoffice and intraoffice)
- Data Communications
- Gigabit Ethernet IEEE 802.3z
- SONET OC-3, OC-12, OC-24/SDH STM-1, STM-4, STM-8
- EPON

## Description

The OLD3335-H5-AFC is a hermetically sealed InGaAsP/ InP DFB laser diode module with horizontal flange in a small coaxial type package, including a high speed InGaAs PIN monitor photodiode and singlemode fiber pigtail connection with a FC/APC interface. It comes with a single isolator and a horizontal flange.

The laser diode is designed for use in data communications systems and telecommunications systems over singlemode fiber, and can operate in temperatures of -40°C to +85°C. The laser diode module transmits emission power to the monitor photodiode in the rear, which ensures highly stable emission at a wavelength of 1310nm.

**Safety**

Radiation emitted by laser diode devices can be dangerous to the eyes. Avoid direct or scattered radiation exposure to the eyes or skin. Device contains gallium arsenide (GaAs) which can be hazardous to your health. Please embrace all customary precautions and discretion while handling this device. Observe governmental laws and regulations when discarding this device.

**Performance Specifications**

**Absolute Maximum Ratings**

Stresses in excess of the absolute maximum ratings can cause damage to the optical device. Operations of the optical device are suggested to remain within the recommended operating conditions. Exposure to the absolute maximum ratings for extended periods can adversely affect device reliability.

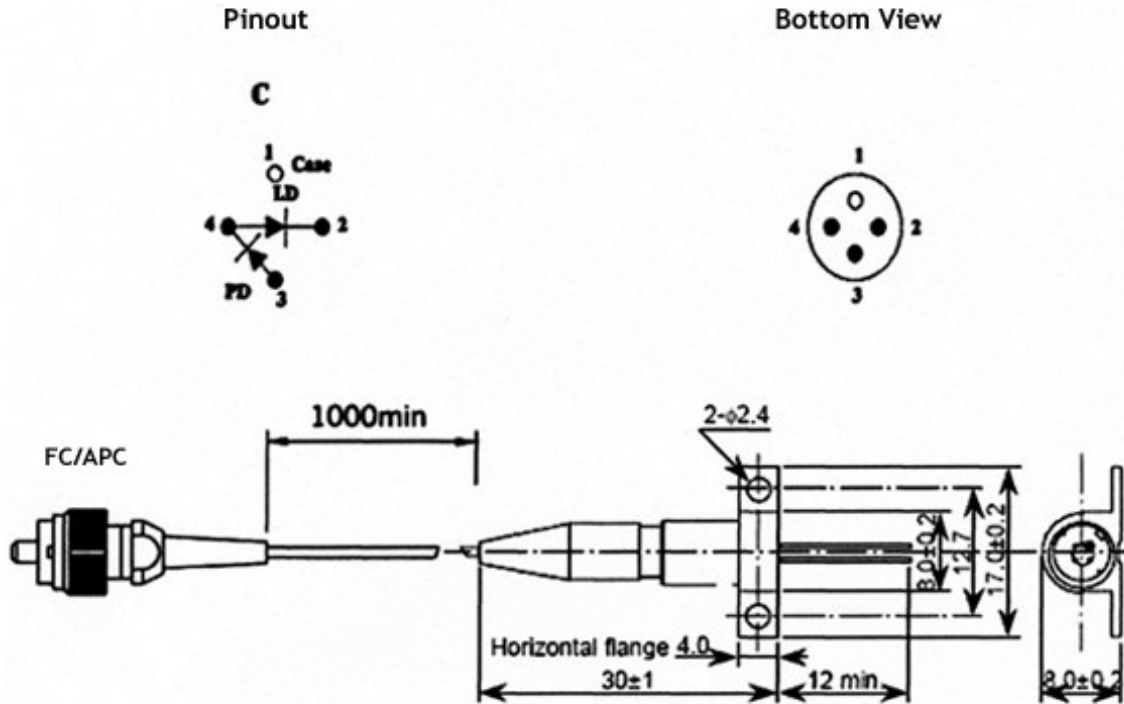
Parameter	Symbol	Value	Unit
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C
Operating Case Temperature	T <sub>op</sub>	-40 to +85	°C
Peak Optical Output Power	P <sub>o</sub>	7	mW
Forward Current (LD)	I <sub>FLD</sub>	120	mA
Reverse Voltage (LD)	V <sub>RLD</sub>	2	V
Reverse Current (PD)	I <sub>RPD</sub>	2	mA
Reverse Voltage (PD)	V <sub>RPD</sub>	15	V
Soldering Temperature	S <sub>temp</sub>	260	°C
Soldering Time	S <sub>time</sub>	10	sec

**Electrical and Optical Characteristics (T<sub>c</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Central Wavelength	λ <sub>c</sub>	CW, Pf	1290	1310	1330	nm
		CW, Pf, T <sub>c</sub> =-40~ 85°C	1280	-	1340	
Threshold Current	I <sub>th</sub>	CW	-	8	15	mA
		CW, T <sub>c</sub> =-40~ 85°C	-	-	40	
Operating Voltage	V <sub>op</sub>	Pf	-	1.2	1.6	V
Side-mode Suppression Rate	SMSR	CW, Pf	30	35	-	dB
Fiber Output Power	Pf	CW, I <sub>f</sub> +35mA	1.0	-	-	mW
Rise Time/ Fall Time	Tr/Tf	I <sub>b</sub> =I <sub>th</sub> , 20%~ 80%	-	-	0.2	ns
Monitor Current	I <sub>m</sub>	Pop, V <sub>rp</sub> =5V	80	300	-	uA
Monitor Dark Current	I <sub>d</sub>	V <sub>rp</sub> =5V	-	-	10	nA
		V <sub>rp</sub> =5V, T <sub>c</sub> =-40~ 85°C	-	-	100	
Monitor Capacitance	C	V <sub>rp</sub> =5V, f=1MHZ	-	-	10	pF
Tracking Error	Pf/Pf	APC, -40~ 85°C	-	±0.7	1.5	dB

### Package Outline Diagram

Dimensions for the device package are given in millimeters.



### Additional Information

#### Contact

For additional information, product specifications, or information about Optocom:

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