

# 1310 nm FP 1.25G Laser Diode With FC Receptacle

Data Sheet

**OLD2334-C5-FRE**

## Features

- Uncooled
- Type C laser
- Low threshold current
- Power Output: 0.5 mW
- 1310nm InGaAsP/ InP Fabry-Perot laser diode
- High speed InGaAs monitor PIN photodiode
- Packaged in FC Receptacle with TO-56
- Operating Temperature: -40 ~ +85°C

## Applications

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

## Description

The OLD2334-C5-FRE is a hermetically sealed InGaAsP/ InP Fabry-Perot laser diode module in a small receptacle type package, including a high speed InGaAs PIN monitor photodiode and packaged in FC receptacle.

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.

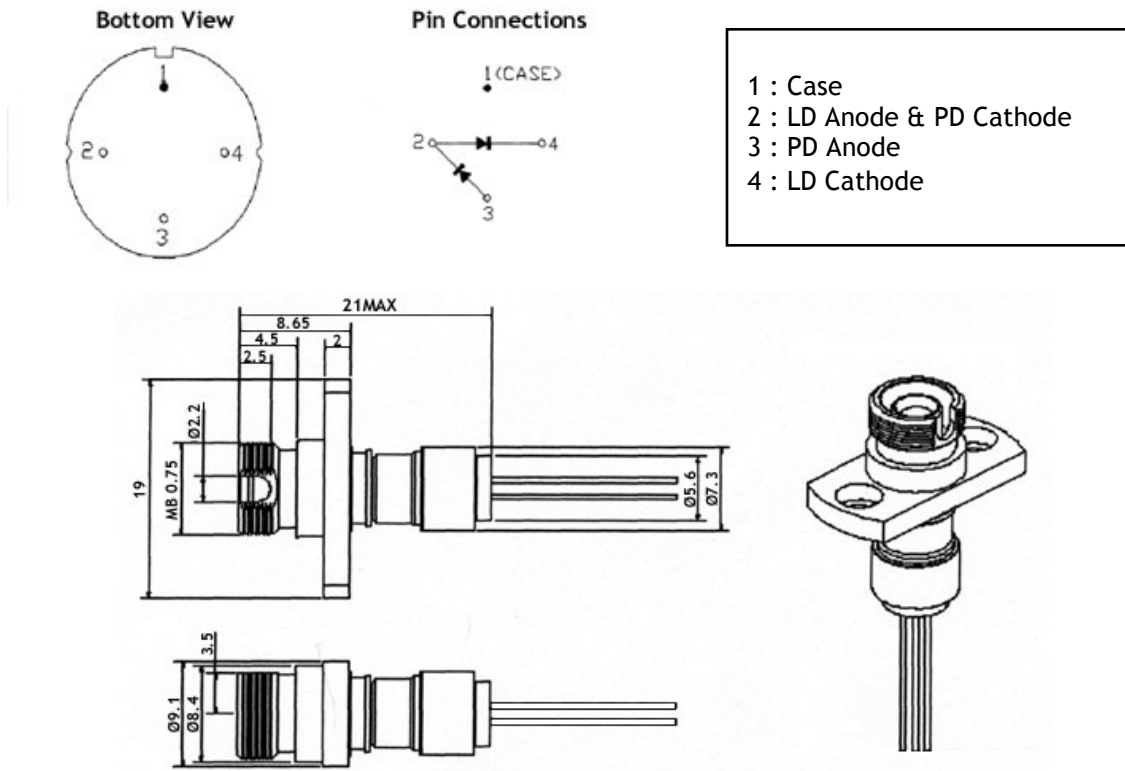
Parameter	Symbol	Value	Unit
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C
Operating Case Temperature	T <sub>op</sub>	-40 to +85	°C
Peak Optical Output Power	P <sub>o</sub>	3	mW
Forward Current (LD)	I <sub>FLD</sub>	150	mA
Reverse Voltage (LD)	V <sub>RLD</sub>	2	V
Reverse Current (PD)	I <sub>RPD</sub>	2	mA
Reverse Voltage (PD)	V <sub>RPD</sub>	15	V
Soldering Temperature	Stemp	260	°C
Soldering Time	Stime	10	sec

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Threshold Current	I <sub>th</sub>	CW	-	10	15	mA
		CW, T <sub>c</sub> =-40~85°C	-	25	30	
Operating Voltage	V <sub>op</sub>	CW, Pop, T <sub>c</sub> =-40~85°C	-	1.1	1.5	V
Operating Current	I <sub>op</sub>	Pop=0.5mW	-	30	40	mA
Peak Wavelength	λ <sub>p</sub>	CW, Pop, T <sub>c</sub> =-40~85°C	1263	-	1360	nm
Spectral Width	Δλ	CW, Pop, T <sub>c</sub> =-40~85°C	-	1.0	2.5	nm
Rise Time	T <sub>r</sub>	I <sub>b</sub> =I <sub>th</sub> , 20%-80%	-	0.15	0.3	ns
Fall Time	T <sub>f</sub>	I <sub>b</sub> =I <sub>th</sub> , 20%-80%	-	0.15	0.3	ns
Monitor Current	I <sub>m</sub>	Pop, V <sub>rp</sub> =5V	100	500	-	μA
Monitor Dark Current	I <sub>d</sub>	V <sub>rp</sub> =5V	-	0.1	10	nA
		V <sub>rp</sub> =5V, T <sub>c</sub> =-40~85°C	-	-	500	
Monitor Capacitance	C	V <sub>rp</sub> =5V, f=1MHZ	-	6	20	pF
Tracking Error	-	APC, -40 to +85°C	-	±0.7	±1.5	dB

### Package Outline Diagram

Dimensions for the device package are given in millimeters.



- 1 : Case
- 2 : LD Anode & PD Cathode
- 3 : PD Anode
- 4 : LD Cathode

### Additional Information

#### Contact

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