1310 nm DFB 2.5G Laser Diode Module With Pigtail Connection and FC/APC

Data Sheet

OLD3435-H5-AFC

Features

- Uncooled
- Single Isolator
- Type C laser
- Low threshold current
- Horizontal flange
- 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
- SONET OC-3, OC-12, OC-48/SDH STM-1, STM-4, STM-16
- Gigabit Ethernet
- Fiber Channel

Description

The OLD3435-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.

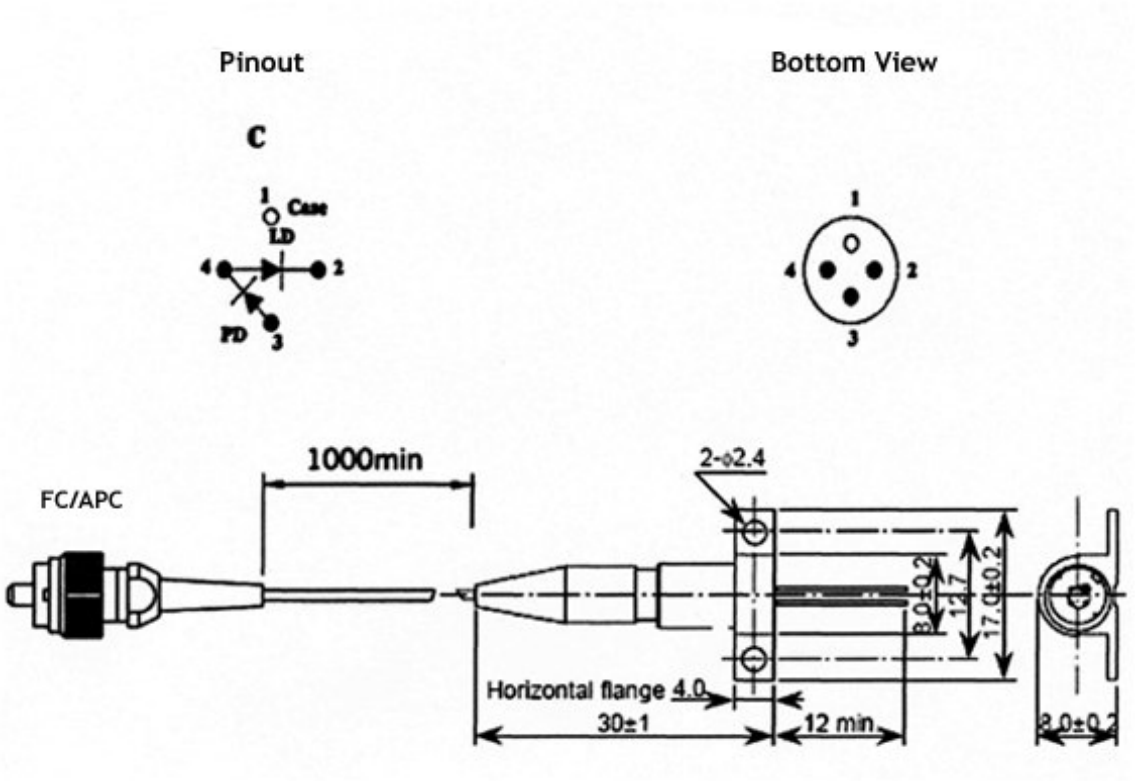
Parameter	Symbol	Value	Unit
Storage Temperature	T_{stg}	-40 to +85	°C
Operating Case Temperature	T_{op}	-40 to +85	°C
Peak Optical Output Power	P_o	7	mW
Forward Current (LD)	I_{FLD}	120	mA
Reverse Voltage (LD)	V_{RLD}	2	V
Reverse Current (PD)	I_{RPD}	2	mA
Reverse Voltage (PD)	V_{RPD}	15	V
Soldering Temperature	S_{temp}	260	°C
Soldering Time	S_{time}	10	sec

Electrical and Optical Characteristics (T_C=25°C unless otherwise noted)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Central Wavelength	λ_C	CW, Pf	1290	1310	1330	nm
		CW, Pf, T_C=-40~ 85°C	1280	-	1340	
Threshold Current	I_{th}	CW	-	8	15	mA
		CW, T_C=-40~ 85°C	-	-	40	
Operating Voltage	V_{op}	Pf	-	1.2	1.6	V
Side-mode Suppression Ratio	SMSR	CW, Pf	30	35	-	dB
Fiber Output Power	Pf	CW, If+35mA	1.0	-	-	mW
Rise Time/ Fall Time	Tr/Tf	Ib=Ith, 20%~ 80%	-	-	0.2	ns
Monitor Current	Im	Pf, Vrp=5V	80	300	-	uA
Monitor Dark Current	Id	Vrp=5V	-	-	10	nA
		Vrp=5V, Tc=-40~ 85°C	-	-	100	
Monitor Capacitance	C	Vrp=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

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