

1550 nm FP 1.25G Laser Diode Module With Pigtail Connection and FC/PC

Data Sheet

OLD2353-H4-FC

Features

- Uncooled
- Type C laser
- Low threshold current
- Output power: 0.4mW
- Data Rate: 1.25 Gbps
- Single Isolator
- Horizontal Flange
- 1550nm Fabry-Perot laser diode
- InGaAs monitor PIN photodiode
- Single mode fiber pigtailed with FC/PC connector
- Operating Temperature: -20~ +85°C

Applications

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

Description

The OLD2353-H4-FC is a hermetically sealed InGaAsP/ InP Fabry-Perot laser diode module in a small coaxial type package, including a high speed InGaAs PIN monitor photodiode and single mode fiber pigtail connection. 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 single mode fiber, and can operate in temperatures of -20°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 1550 nm.

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.

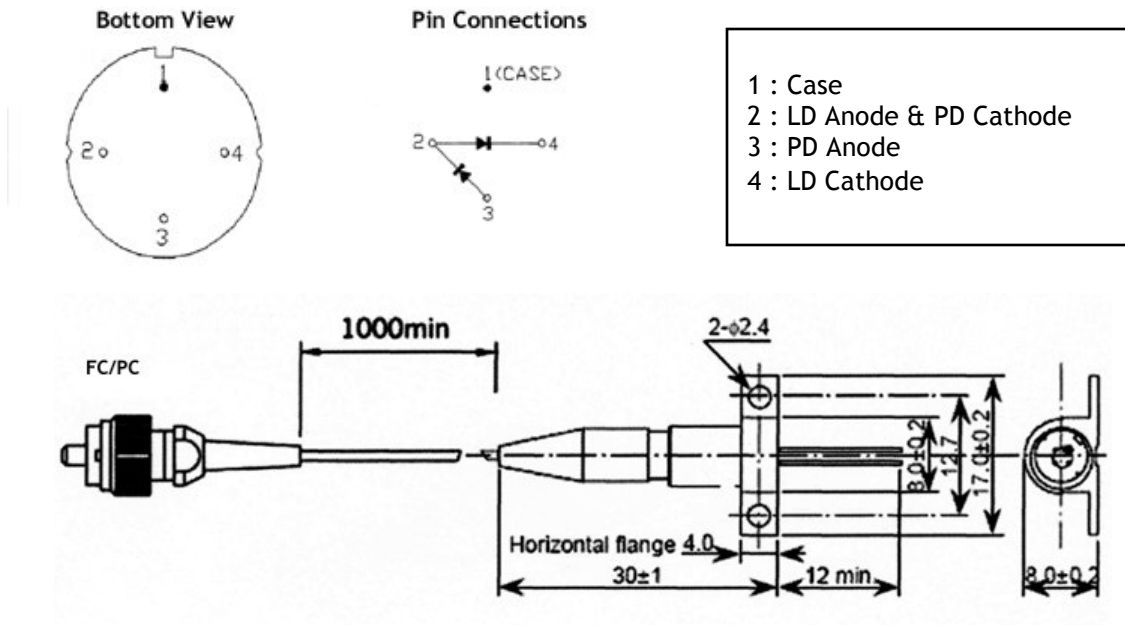
Parameter	Symbol	Value	Unit
Storage Temperature	T_{stg}	-40 to +85	°C
Operating Case Temperature	T_{op}	-20 to +85	°C
Peak Optical Output Power	P_o	3	mW
Forward Current (LD)	I_{FLD}	150	mA
Reverse Voltage (LD)	V_{RLD}	2	V
Reverse Current (PD)	I_{RPD}	2	mA
Reverse Voltage (PD)	V_{RPD}	15	V
Soldering Temperature	Stemp	260	°C
Soldering Time	Stime	10	sec

Electrical and Optical Characteristics ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Threshold Current	Ith	CW	-	10	15	mA
		CW, $T_c=-20-85^\circ\text{C}$	-	-	30	
Operating Voltage	Vop	CW, Pop, $T_c=-20-85^\circ\text{C}$	-	1.1	1.5	V
Operating Current	Iop	Pop=0.5mW	-	30	40	mA
Peak Wavelength	λ_p	CW, Pop, $T_c=-20-85^\circ\text{C}$	1480	-	1580	nm
Spectral Wavelength	$\Delta\lambda$	CW, Pop, $T_c=-20-85^\circ\text{C}$	-	1.5	3.0	nm
Rise Time	Tr	Ib=Ith, 20%-80%	-	0.25	0.5	ns
Fall Time	Tf	Ib=Ith, 20%-80%	-	0.25	0.5	ns
Monitor Current	Im	Pop, Vrp=5V	100	500	-	uA
Monitor Dark Current	Id	Vrp=5V	-	0.1	10	nA
		Vrp=5V, $T_c=-20-85^\circ\text{C}$	-	-	500	
Monitor Capacitance	C	Vrp=5V, f=1MHz	-	6	20	pF
Tracking Error	-	APC, -20 to +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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