

1310 nm FP 4G Laser Diode Module With Pigtail Connection and ST/APC

Data Sheet

OLD2635-C5-AST

Features

- Uncooled
- Type C laser
- Low threshold current
- Power Output: 1 mW
- Data Rates: 4 Gb/s
- 1310nm InGaAsP/ InP Fabry-Perot laser diode
- High speed InGaAs monitor PIN photodiode
- Singlemode fiber pigtailed with ST/APC connector
- Operating Temperature: -40 ~ +85°C

Applications

- Digital Signal Transmission
- Telecommunications (Local loop, interoffice and intraoffice)
- Data Communications
- Storage Network
- 4Gb/s Fiber Channel

Description

The OLD2635-C5-AST 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 singlemode fiber pigtail connection with a ST/APC interface.

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	2	mW
Forward Current (LD)	I_{FLD}	100	mA
Reverse Voltage (LD)	V_{RLD}	2	V
Reverse Current (PD)	I_{RPD}	2	mA
Reverse Voltage (PD)	V_{RPD}	20	V
Soldering Temperature	S_{temp}	260	°C
Soldering Time	S_{time}	10	sec

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

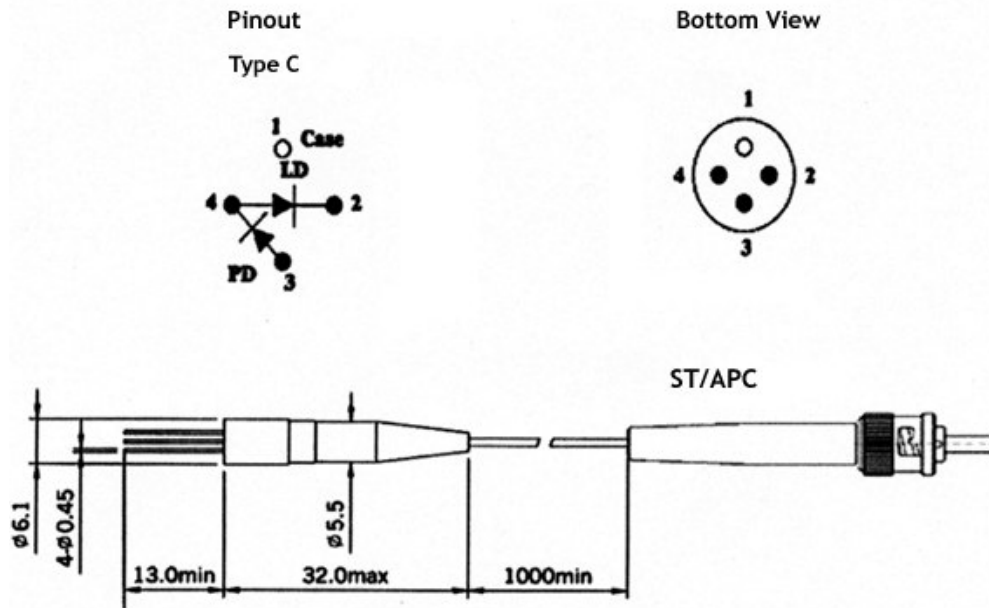
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Central Wavelength	λ_c	CW, Pf	1290	1310	1330	nm
Spectral Width, RMS	$\Delta\lambda$	CW, Pf	-	1.5	3	nm
Threshold Current	I_{th}	CW	-	10	15	mA
Fiber Output Power	Pf	CW, $I_f=I_{th}+20\text{mA}$	1.0	-	-	mW
Operating Voltage	V_{op}	Pf	-	1.15	1.5	V
Rise Time	T_r	$I_b=I_{th}$, 20%-80%	-	50	70	ps
Fall Time	T_f	$I_b=I_{th}$, 20%-80%	-	50	70	ps
Tracking Error	Pf/Pf	APC, -40-85°C	-	-	±1.0	dB

Photodiodes Parameter (CW @ $T_c=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Monitor Current	I_m	Pf, $V_{rp}=5\text{V}$	100	500	-	µA
Monitor Dark Current	I_d	$V_{rp}=5\text{V}$	-	10	100	nA
Monitor Capacitance	C	$V_{rp}=5\text{V}$, $f=1\text{MHz}$	-	10	20	pF

Package Outline Diagram

Dimensions for the device package are given in millimeters.



Additional Information

Contact

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

Internet: <http://www.optocom.com>

Email: sales@optocom.com

Tel: +1 978 988 8711

Fax: +1 978 988 8722

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