

1310 FP 1.25G Laser Diode With SC TOSA

Data Sheet

OLD2332-D5-STO

Features

- Uncooled
- Type C laser
- Low threshold current
- Single Isolator
- Power Output: 0.2 mW
- 1310nm InGaAsP/ InP Fabry-Perot laser diode
- High speed InGaAs monitor PIN photodiode
- Packaged in SC TOSA
- 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
- Gigabit Ethernet

Description

The OLD2332-D5-STO is a hermetically sealed InGaAsP/ InP Fabry-Perot laser diode module in a small TOSA type package, including a high speed InGaAs PIN monitor photodiode and packaged in SC TOSA. It also comes with a single isolator.

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 1310 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	Tstg	-40 to +85	°C
Operating Case Temperature	Top	-40 to +85	°C
Peak Optical Output Power	Po	8	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°C unless otherwise noted)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Threshold Current	I _{th}	CW	-	10	15	mA
		CW, T _C =-40-85°C	-	-	30	
Operating Voltage	V _{op}	CW, Pop, T _C =-40-85°C	-	1.2	1.6	V
Operating Current	I _{op}	Pop=0.2mW	-	30	40	mA
Peak Wavelength	λ _p	CW, Pop, T _C =-40-85°C	1263	-	1360	nm
Spectral Width	Δλ	CW, Pop, T _C =-40-85°C	-	1.5	2.5	nm
Rise Time	T _r	I _b =I _{th} , 20%-80%	-	-	0.3	ns
Fall Time	T _f	I _b =I _{th} , 20%-80%	-	-	0.3	ns
Monitor Current	I _m	Pop, V _{rp} =5V	200	500	800	μA
Monitor Dark Current	I _d	V _{rp} =5V	-	-	10	nA
		V _{rp} =5V, T _C =-40-85°C	-	-	500	
Monitor Capacitance	C	V _{rp} =5V, f=1MHZ	-	6	20	pF
Tracking Error	-	APC, -40 to +85°C	-	-	±1.5	dB

