

1102 Coaxial DFB Laser Diode

LD-1310-TO



1310 nm TO LD Laser Diode

The CWDM (Aspherical Lens) TO LD laser diodes are uncooled multi-quantum-well DFB (Distributed Feedback) laser diodes for 2.5 Gbps and 10 Gbps transmission at 1310 nm/1490 nm/1550 nm.

The laser diodes are packaged in a standard TO56 coaxial package with a photodiode for optical power monitor. Among these laser diodes, four products at 1270 nm, 1290 nm, 1310 nm and 1330 nm are suitable for 10 Gbps transmission.

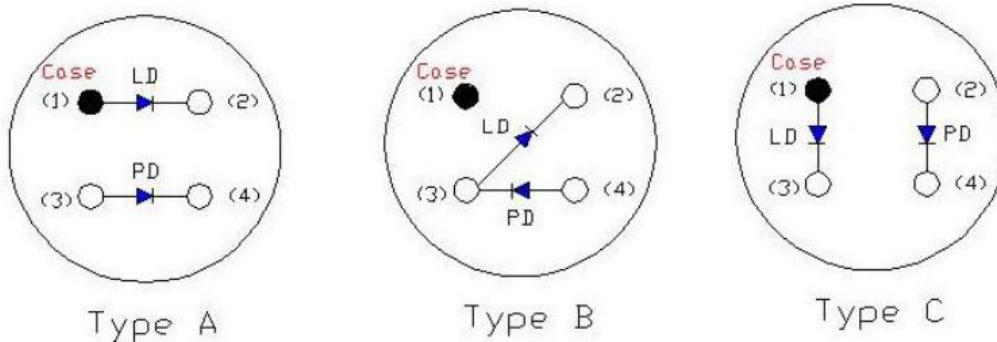
FEATURES

- CWDM Band Wavelengths
- Low Threshold and Low Operating Current
- High Efficiency and High Output Power
- Wide Operation Temperature Range
- High Reliability
- TO56 Standard Package
- Reliability: Telcordia GR-468. RoHS

USE IN

- 2.5/10 Gbps Fiberoptic Transmission
- Optical Communication Transceivers
- Storage Area Networks
- Fiber Sensors
- Fiberoptic Test and Measurement

FUNCTIONAL DRAWING



Pin Assignment:

Pin No.	Type A	Type B	Type C
1	LD Anode(Case)	Case	LD Anode(Case)
2	LD Cathode (+)	LD Cathode (+)	PD Anode(-)
3	PD Anode (-)	LD Anode/ PD Cathode (+)	LD Cathode(+)
4	PD Cathode (+)	PD Anode (-)	PD Cathode(+)

Order notes to our customers: The default parameters are as follows. For special needs, please contact sales.

1) Connector FC/APC, 900 um, 1 m by default for all devices except for high power devices.

2) Slow axis working, fast axis blocked, connector key is aligned to slow axis by default for PM devices.

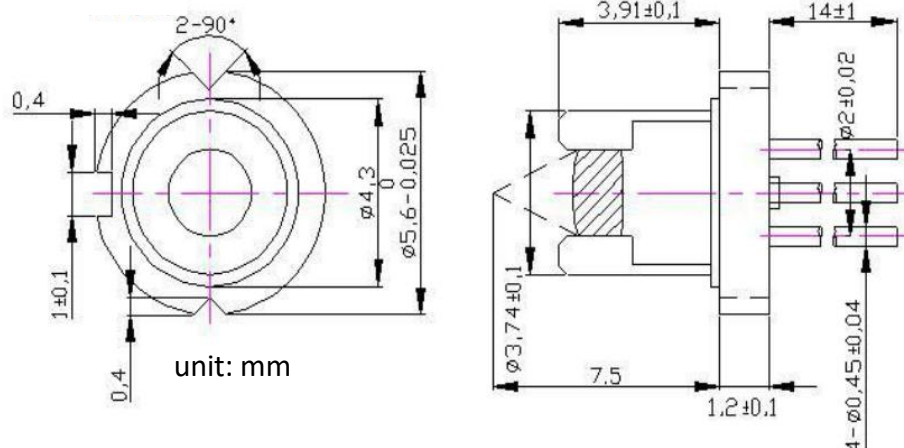
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Forward Current (Laser Diode)		150 mA max.
Reverse Voltage (Laser Diode)		2 V max.
Forward Current (Photo Diode)		2 mA max.
Reverse Voltage (Photo Diode)		20 V max.
Case Temperature		-40 °C to +85 °C
Storage Temperature		-40 °C to +85 °C
Soldering Temperature (10 s max.)		260 °C max.
Threshold Current	CW	7 mA typ.; 15 mA max.
	CW, TC=85 °C	30 mA typ.; 40 mA max.
Output Power	CW, I _f =I _{th} +20 mA	6 mW typ.
	CW, I _f =I _{th} +20 mA, T=85 °C	3 mW typ.
Slope Efficiency	CW, I _f =I _{th} +20 mA	0.36 mW/mA typ.; 0.3 mW/mA min.
Operating Voltage	CW, I _f =I _{th} +20 mA	1.1 V typ.; 1.5 V max.
Peak Wavelength	CW, I _f =I _{th} +20 mA, T=-40 °C to +85 °C	λ _c -3 min.; λ _c max.
Wavelength/Temperature Coefficient	T=-40 °C to +85 °C	0.09 nm/ °C typ.
Dynamic Spectral Width	2.5 GHz at -20 dB	0.32 nm typ.
Side Mode Suppression Ratio	CW, I _f =I _{th} +20 mA, T=-40 °C to +85 °C	40 dB typ.; 35 dB min.
Rise Time/Fall Time	2.5 Gbps, I _{pp} =40 mA, I _b =I _{th} 20% to 80%	80 ps typ.; 120 ps max.
Monitor Current (PD)	CW, I _f =I _{th} +20 mA, VRD=1 V, RL=10	0.3 mA typ.; 0.1 mA min.; 1.0 mA max.
Dark Current (PD)	VRD=5 V	1.0 μA max.
Capacitance (PD)	VRD=5 V, f=1 MHz	10 pF typ.; 20 pF max.
Focus Length	Aspherical	7.5 mm typ.; 7.0 mm min.; 8.0 mm max.

MECHANICAL DRAWING



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