



2.5G High Power DFB Laser - OTDR

Description

A 2.5G DFB high optical output power laser designed for OTDR applications. This is a pulsed laser with built in monitor Photodiode.

Features

- High output power
- Built in monitor Photodiode
- Available wavelengths
 - 850 nm
 - 1310 nm
 - 1550 nm
- 2.5 GHz Cutoff Frequency
- Pulse Width (PW) = 10 μ s, Duty 1%
- Ability to choose desired optical connector.



Applications

- Optical time-domain reflectometer (OTDR)



Electro-Optical Characteristics ($T_{op} 23 \pm 3^{\circ}C$, unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max	Unit	Notes
Forward Voltage	V_{FP}			3.5	V	850, 1310, 1550 nm
Threshold Current	I_{th}		18	25	mA	850 nm
			10	15	mA	1310,1550 nm
Optical Power	P_o		120		mW	850 nm, $I_f = 300$ mA, $PW = 10$ μ S Duty = 1%
			60			1310, 1550 nm, $I_f = 300$ mA, $PW = 10$ μ S Duty = 1%
Center Wavelength	λ_c	$\lambda_c - 10$	λ_c	$\lambda_c + 10$	nm	$PW = 10$ μ S Duty = 1%
Rise Time	T_r		1	2	ns	850 nm , 10-90%
			0.5	1		1310, 1550 nm , 20-80%
Fall Time	T_f		1	2	ns	850 nm , 90-10%
			0.5	1		1310, 1550 nm , 80-20%

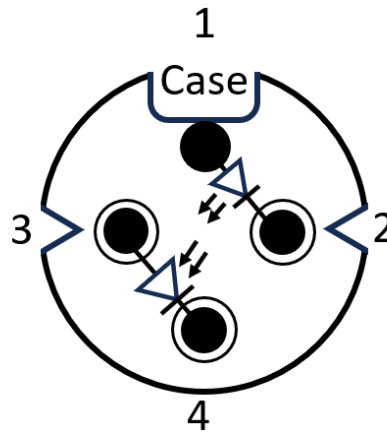
Absolute Maximum Ratings

Parameter	Symbol	Condition	Min.	Max.	Unit
Reverse Voltage	V_r	Laser		2	V
		Photodiode		10	
Forward Current	I_F			700	mA
Reverse Current	I_R	Photodiode		2	mA
Optical Input power	P_{in}			10	mW
Storage Temperature	T_{stg}		-25	90	$^{\circ}C$
Storage Humidity	H_{stg}			85	% r.H.
Operating Temperature	T_{op}		-25	80	$^{\circ}C$
Soldering Temperature	T_{st}	60 sec		200	$^{\circ}C$
ESD Susceptibility		HBM	100		V

Operating at maximum ratings for a prolonged period will cause damage to the device.



Pin Configuration



Pin Number	Function
1	Laser Anode (+)/ Case
2	Laser Cathode (-)
3	PD Anode (+)
4	PD Cathode (-)

Table 1: Device Pin out

Device Dimensions

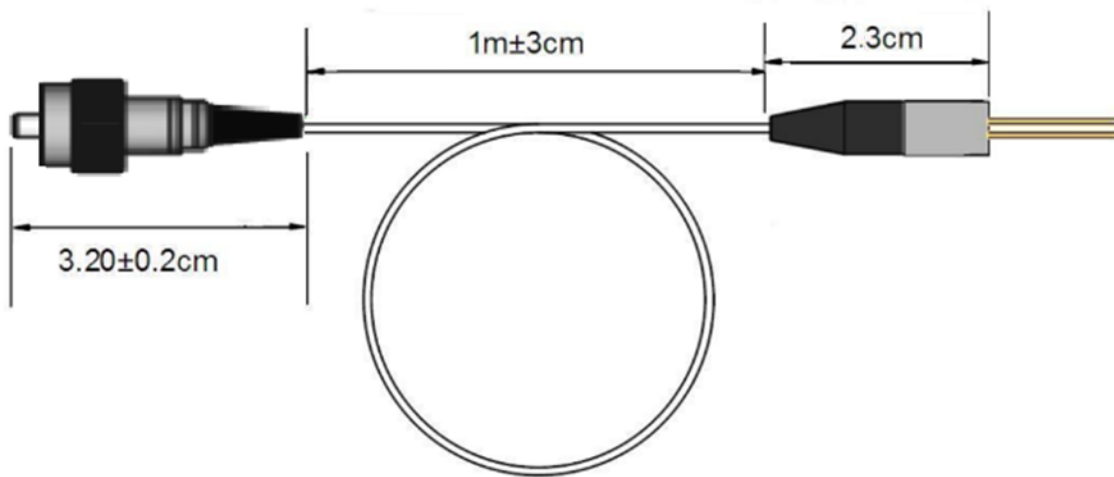
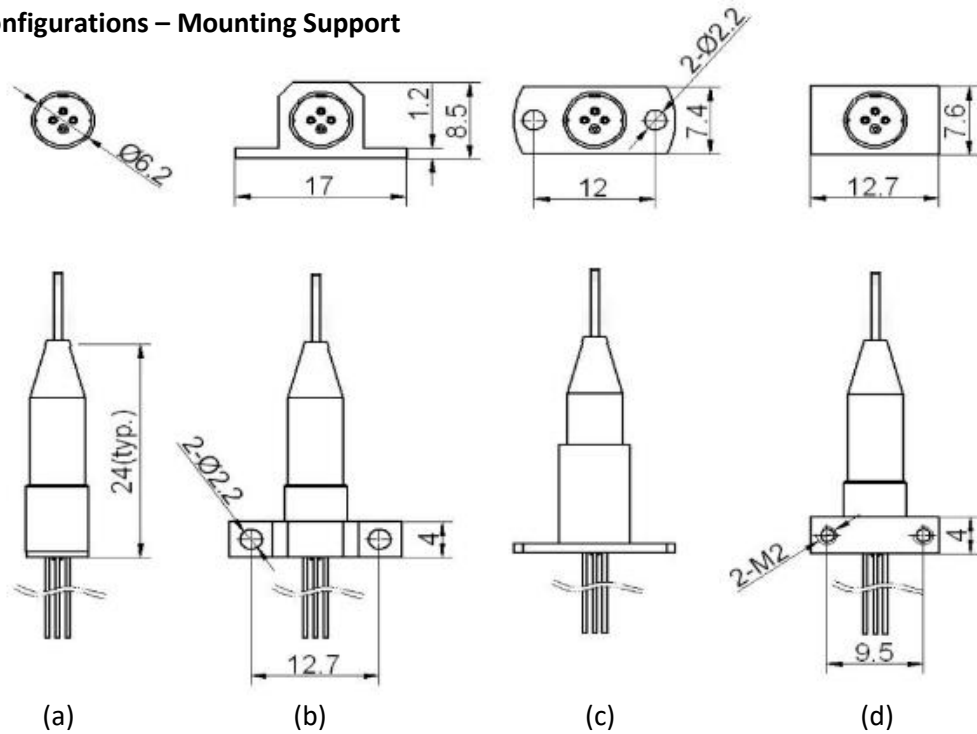


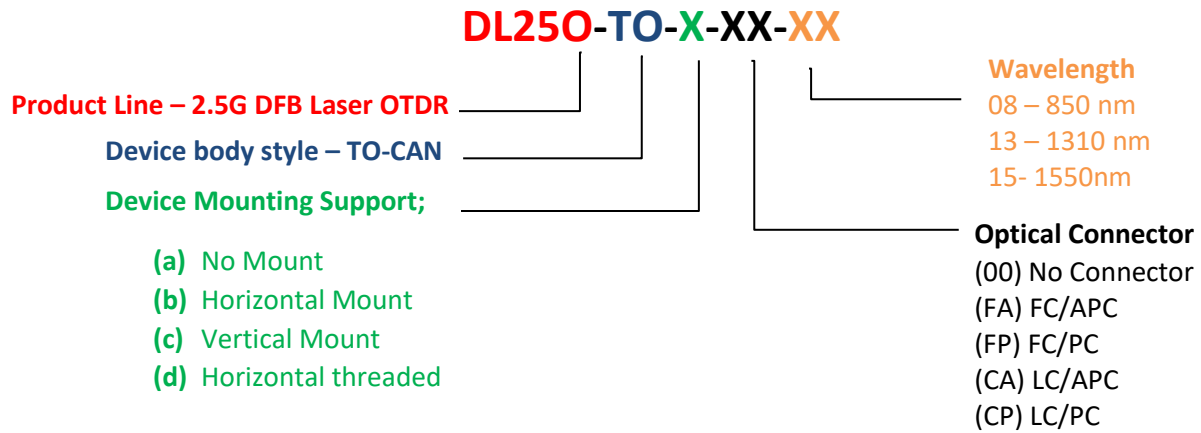
Fig 2: Device mechanical drawing. (All units in mm). Fiber and connector size differs based on build configuration.



Build Configurations – Mounting Support



Device Nomenclature



Inquiry Information

Sales: All inquiries regarding sales please contact Sales@NuPhotonics.com

General: If you are interested in a custom solution, general information, or engineering related information please contact Inquiry@NuPhotonics.com



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