



25G DFB Laser TOSA-LC Package

Description

A 25 Gb/s edge emitting laser diode in a TO-can package. The Multi-quantum well distributed feedback (DFB) laser is directly modulated (DML) with a RF signal. This device comes with a built in monitor photodiode. This devices comes configured with a flexible PCB.

Features

- TO-Can Package
- LC- Receptacle
- 1310 nm CW
- High SFDR
- Wide Temperature operating range
- Low Threshold Current



Applications

- 5G
- RF over Fiber (RFoF)



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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Peak Wavelength	λ	1300	1310	1325	nm	
Threshold Current	I_{th}		6	15	mA	$T=25^{\circ}C$
Front Power	P_o	0.7	1		mW	$I_f = I_{th} + 20\text{ mA}$
Slope Efficiency	η	0.2	0.3		W/A	$I_f = I_{th} + 20\text{ mA}$
Series Resistance	R			10	Ohms	$P_o = 8\text{ mW}$
Forward Voltage	V_f		1.1	1.5	V	$I_f = I_{th} + 20\text{ mA}$
Spectral Wavelength Width (RMS)	$\Delta\lambda$		0.3	0.5	nm	$P_o = 5\text{ mW}$ at -20 dB
Frequency Bandwidth	BW	10			GHz	Designed RF board.
Side Mode Suppression Ratio	SMSR	35			dB	
Monitor Current	I_m	0.4	0.5	1.0	mA	$I_{op} = 30\text{ mA}$
Optical Return Loss	ORL			-30	dB	CW = 1310 nm
Tracking Error	T_e	-1.5		1.5	dB	$-40 - 80^{\circ}C$

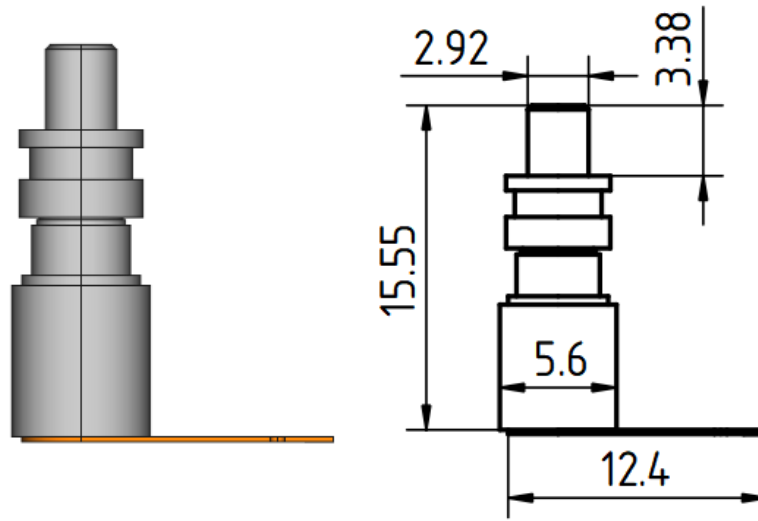
Laser Absolute Maximum Ratings

Parameter	Symbol	Condition	Min.	Max.	Unit
Voltage (laser)	V			1.8	V
Forward Current	I_F				mA
Storage Temperature	T_{stg}		-25	90	$^{\circ}C$
Storage Humidity	H_{stg}			85	% r.H.
Operating Temperature	T_{op}		-25	85	$^{\circ}C$
Soldering Temperature	T_{st}	10 sec		260	$^{\circ}C$
ESD Susceptibility		HBM	100		V
Monitor Forward Current	V_{PD}			1	mA

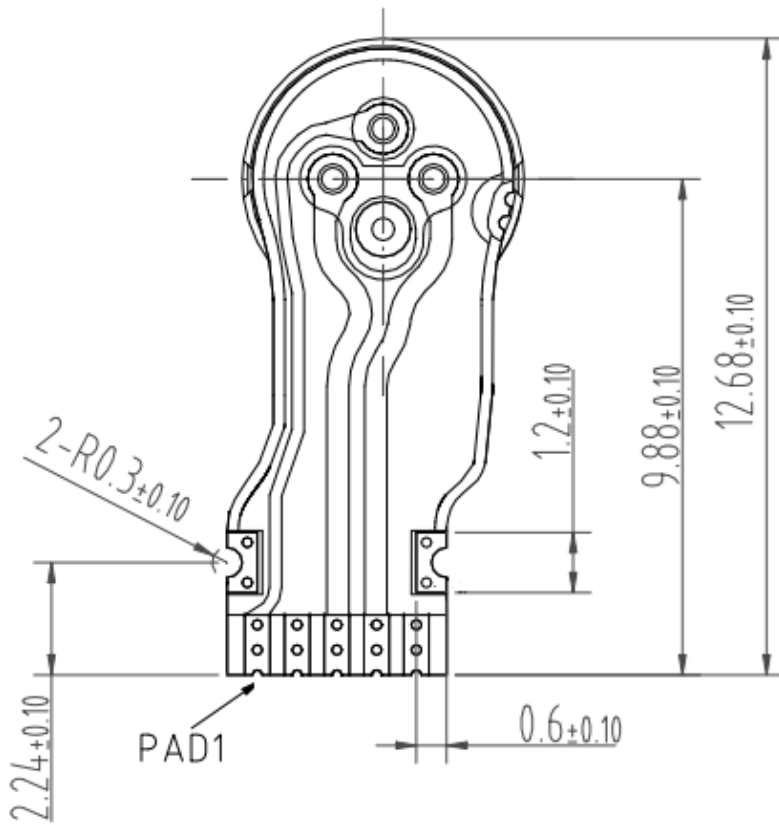
Operating at maximum operating specs for prolong periods of time will damage the device.



Device Dimensions (all units in mm)



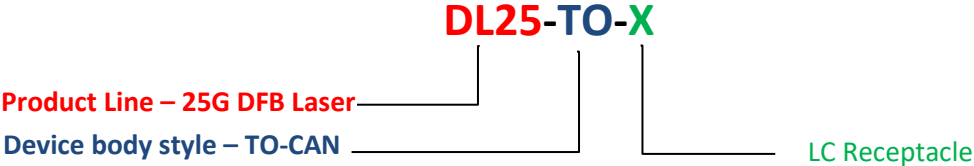
Device Pin Configuration (Bottom View)



Pad	Function
1	PD Cathode
2	PD Anode / Case
3	Laser Cathode
4	Laser Anode
5	Pd Anode/ Case



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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