

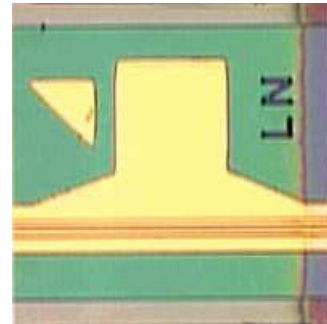
## 1310 nm 2.5 Gbps FP Laser

### FI2X-700X Series

**Part Number: FI2D-7001**

**Product Description:**

The LuxNet FI2D-7001 FP laser chip is designed for high speed, high performance data communication and telecommunication applications. It is suitable for cooler-less application over a wide temperature range at speeds up to 2.5 Gbps. Applications include OC-3, OC-12, OC-48, GBE and Fiber Channels.



**Product Specifications:**

**Absolute Maximum Ratings**

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T <sub>op</sub>	°C	-40	85	
Storage Temperature	T <sub>stg</sub>	°C	- 40	100	
Die-Attach Temperature		°C		330	30 seconds max.
Maximum Power	P <sub>o</sub>	mW		10	
Reverse Voltage	V <sub>r</sub>	V		2	

**Electro-Optical Characteristics (T = 25°C, unless noted otherwise):**

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	I <sub>th</sub>	mA	--	10	13.5 30	T <sub>a</sub> =25°C T <sub>a</sub> =85°C
Forward Voltage	V <sub>f</sub>	V	--	1.2	1.6	P <sub>o</sub> =5 mW
Slope Efficiency	η	W/A	0.35	0.43	--	Average, I <sub>th</sub> +5 mA to I <sub>th</sub> +15 mA
Peak Wavelength	λ <sub>p</sub>	nm	1290	1310	1330	P <sub>o</sub> =5 mW
Spectral Wavelength (RMS)	Δλ	nm	--	1.5	3	P <sub>o</sub> =5 mW
Beam Divergence Angle (//) Beam Divergence Angle (+)		degree	--	18 33	--	FWHM @ P <sub>o</sub> =5 mW
Rise Time	τ <sub>r</sub>	ps	--	150	--	I <sub>b</sub> = I <sub>th</sub> , P <sub>o</sub> = 5 mW, 20-80%
Fall Time	τ <sub>f</sub>	ps	--	150	--	I <sub>b</sub> = I <sub>th</sub> , P <sub>o</sub> =5 mW, 20-80%
Relaxation Oscillation Frequency	f <sub>r</sub>	GHz	4	7	--	P <sub>o</sub> =5 mW

Chip configuration:

1. Top contact: anode; Bottom contact: cathode.
2. Dimension: 250 um (width) x 250 um (cavity length) x 100 um (thickness)  
Tolerance: +/-12.5um (Thickness)  
              +/-20um (Width, Length)

\* Specifications are subject to change without notice.  
\* Screening per customer-specified reject limits is available.