

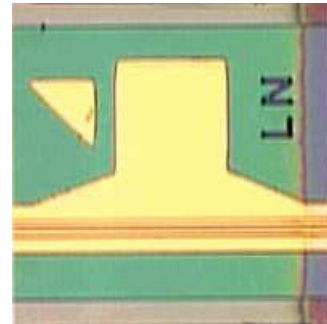
1310 nm 2.5 Gbps FP Laser

FI2X-700X Series

Part Number: FI2D-7000

Product Description:

The LuxNet FI2D-7000 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 _{op}	°C	-40	85	
Storage Temperature	T _{stg}	°C	-40	100	
Die-Attach Temperature		°C		330	30 seconds max.
Maximum Power	P _o	mW		10	
Reverse Voltage	V _r	V		2	

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

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	I _{th}	mA	--	10	13.5 30	T _a =25°C T _a =85°C
Forward Voltage	V _f	V	--	1.2	1.6	P _o =5 mW
Slope Efficiency	η	W/A	0.3	0.35	--	Average, I _{th} +5 mA to I _{th} +15 mA
Peak Wavelength	λ _p	nm	1290	1310	1330	P _o =5 mW
Spectral Wavelength (RMS)	Δλ	nm	--	1.5	3	P _o =5 mW
Beam Divergence Angle (//) Beam Divergence Angle (+)		degree	--	18 33	--	FWHM @ P _o =5 mW
Rise Time	τ _r	ps	--	150	--	I _b = I _{th} , P _o = 5 mW, 20-80%,
Fall Time	τ _f	ps	--	150	--	I _b = I _{th} , P _o =5 mW, 20-80%,
Relaxation Oscillation Frequency	f _r	GHz	4	7	--	P _o =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.