

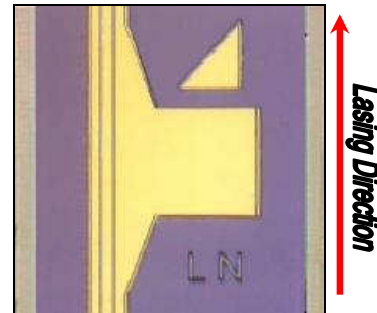
1310 nm 10 Gbps FP Laser (Preliminary)

FI5X-700X Series

Part Number :FI5C-7000

Product Description:

The LuxNet 1310 nm FP laser chip is designed for high speed, high performance data communication and telecommunication applications. It is suitable for cooler-less applications over a wide temperature range at speed up to 10 Gbps.



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	
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	--	12	15 30	T _a =25°C T _a =85°C
Forward Voltage	V _f	V	--	1.2	1.5	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	--	--	3	P _o =5 mW
Beam Divergence Angle (//)		degree	--	18	--	FWHM
Beam Divergence Angle (+)		degree	--	35	--	FWHM
Modulation Bandwidth	F _{3dB}	GHz	10	--	--	I=I _{th} +25mA

Chip configuration:

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