

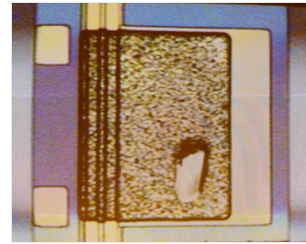
## 1310 nm 10 Gbps FP Laser

### FI5X-70XX Series

#### Part Number :FI5C-702A

#### 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 <sub>op</sub>	°C	-40	85	
Storage Temperature	T <sub>stg</sub>	°C	-40	100	
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 25	T <sub>a</sub> =25°C T <sub>a</sub> =0 to 85°C
Forward Voltage	V <sub>f</sub>	V		1.3	1.5	P <sub>o</sub> =5 mW
Slope Efficiency	η	W/A	0.3	0.35	--	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			3	P <sub>o</sub> =5 mW, 1σ
Beam Divergence Angle (//)		degree		18		FWHM
Beam Divergence Angle (+)				35		
Modulation Bandwidth	F <sub>3dB</sub>	GHz	10			I=I <sub>th</sub> +25mA

#### Chip configuration:

1. Top contact: anode; Bottom contact: cathode.
2. Dimension: 200 μm (width) x 200 μm (cavity length) x 100 μm (thickness)  
 Tolerance: +/-12.5μm (Thickness)  
 +/-20μm (Width, Length)