

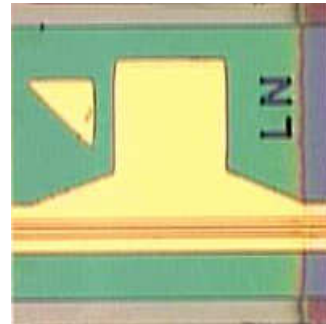
1550 nm 1.25 Gbps DFB Laser (Preliminary)

BJ1A-700X Series

Part Number: BJ1A-7002

Product Description:

The LuxNet BJ1A-7002 DFB 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 and long distance at speeds up to 1.25 Gbps.



Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T_{op}	°C	-40	85	Tc
Storage Temperature	T_{stg}	°C	- 40	100	
Die-Attach Temperature		°C		330	10 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	--	12	15 45	Ta=25°C Ta=85°C
Forward Voltage	V_f	V	--	1.2	1.6	Po=5 mW
Slope Efficiency	η	W/A	0.2	--	--	Average, $I_{th}+5$ mA to $I_{th}+15$ mA
Peak Wavelength	λ_p	nm	1535	1550	1565	$I_{th}+5$ mA to $I_{th}+15$ mA
Side Mode Suppression Ratio	SMSR	dB	30	--	--	Po=5 mW
Beam Divergence Angle (//) Beam Divergence Angle (+)	--	degree	--	20 30	--	Po=5 mW
Rise Time	τ_r	ps	--	250	--	$I_b = I_{th}$, $P_0 = 5$ mW, 20-80%
Fall Time	τ_f	ps	--	250	--	$I_b = I_{th}$, $P_0 = 5$ mW, 20-80%

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.