

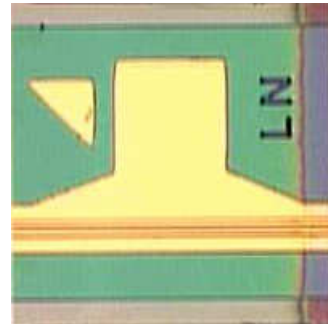
1490 nm 1.25 Gbps DFB Laser (Preliminary)

BL1A-700X Series

Part Number: BL1A-7002

Product Description:

The LuxNet BL1A-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 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	1475	1490	1505	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.