

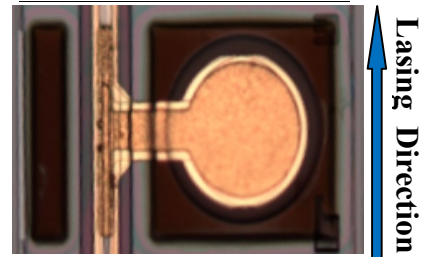
BC7X-7010 CWDM 25Gbps DFB Laser

Part Number: BC7X-7010

Product Description:

The LuxNet BC7X-7010 DFB laser chip is designed for high speed, high performance optical communication applications.

BC7X-7010 Series



Product Specifications:
Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Case Temperature	T_C	$^{\circ}C$	0	70	
Storage Temperature	T_{stg}	$^{\circ}C$	- 40	100	
Die-Attach Temperature		$^{\circ}C$	--	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	--	7	10 20	$T_a=25^{\circ}C$ $T_a=70^{\circ}C$
Operating Voltage		V_{op}	V	--	1.2	1.5	$P_o=5\text{ mW}$
Slope Efficiency		η	mW/ mA	0.3	--	--	$T_a=25^{\circ}C$
Peak Wavelength	BC57-7022	λ_p	nm	1260	--	1280	$P_o=5\text{ mW},$ $T_c=0\sim 70^{\circ}C$
	BC59-7022			1280	--	1300	
	BC51-7022			1300	--	1320	
	BC53-7022			1320	--	1340	
Side Mode Suppression Ratio		SMSR	dB	35	--	--	$P_o=5\text{ mW}$
Beam Divergence Angle ($//$)		$\theta_{//}$	degree	--	27	--	FWHM @ $P_o=5\text{ mW}$
Beam Divergence Angle (\perp)		θ_{\perp}			33		
Rise Time		τ_r	ps	--	20	--	$I_b=I_{th}, P_o=5\text{ mW},$ 20-80%
Fall Time		τ_f	ps	--	20	--	$I_b=I_{th}, P_o=5\text{ mW},$ 20-80%
Relaxation Oscillation Frequency		f_r	GHz	--	20	--	$P_o=5\text{ mW}$

Chip configuration:

1. Top contact: anode; Bottom contact: cathode.
2. Dimension: 250 μm (width) x 150 μm (cavity length) x 80 μm (thickness)
 Tolerance: +/-12.5 μm (Thickness) +/-20 μm (Width, Length)

- * Specifications are subject to change without notice.
- * Screening per customer-specified reject limits is available.