

1310nm 25Gbps DFB Laser TO38 LC TOSA with Flex (Preliminary)

BIGM-93G2-7B Series

TYPE NAME: BIGM-93G2-7B (ENG-01)

Product Description:

This Luxnet BIGM-93G2-7B 4pin 25Gbps DFB Laser TO38 LC-TOSA (Transmitter Optical Sub Assembly) is designed for 25Gbps fiber optic data communication. The application requirements are used to perform through single mode optical fiber. A flex provides to interconnect from header, which leads to transceiver PCB with control impedance. The device integrates DFB Laser diode with InGaAs PD as laser power monitor which located in the To-can. The product contains low threshold current.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Units	Min	Max	Note
Operating Temperature (case)	T _c	°C	-40	+85	
Storage Temperature	T _{stg}	°C	-40	+85	
Soldering Temperature (10 sec)	STEM	°C	-	260	
Laser Reverse Voltage	V _{RL}	V	-	2	
Laser Forward Current	I _{FL}	mA	-	100	
Photodiode Reverse Voltage	V _{RD}	V	-	15	
Photodiode Forward Current	I _{pd}	mA	-	10	

Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Units	Min	Typ	Max	Test condition
Threshold Current	I _{th}	mA	-	8		CW, T _c = 25°C
					30	
Forward Voltage	V _f	V	-	-	2	CW, T _c = 25°C, I _{op} = I _{th} +30mA
Optical Output Power	SMF	P _r	-4.0		+2.0	CW, T _c = 25°C, I _{op} = I _{th} +30mA
Optical Output Power	SMF	P _r	0.4		1.6	CW, T _c = 25°C, I _{op} = I _{th} +30mA
Peak Wavelength	λ	nm	1295	1310	1325	T _c = 25°C
Tracking error	ΔP _f /P _f	dB	-1.5		+1.5	APC, -40~85°C
Side Mode Suppression Ratio	SMSR	dB	30			T _c = 25°C, I _{op} = I _{th} +30mA Scan resolution <0.1nm
Rise Time / Fall Time	τ _r /τ _f	ps	-	20		I _{op} = I _{th} +30mA 20-80%

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.0

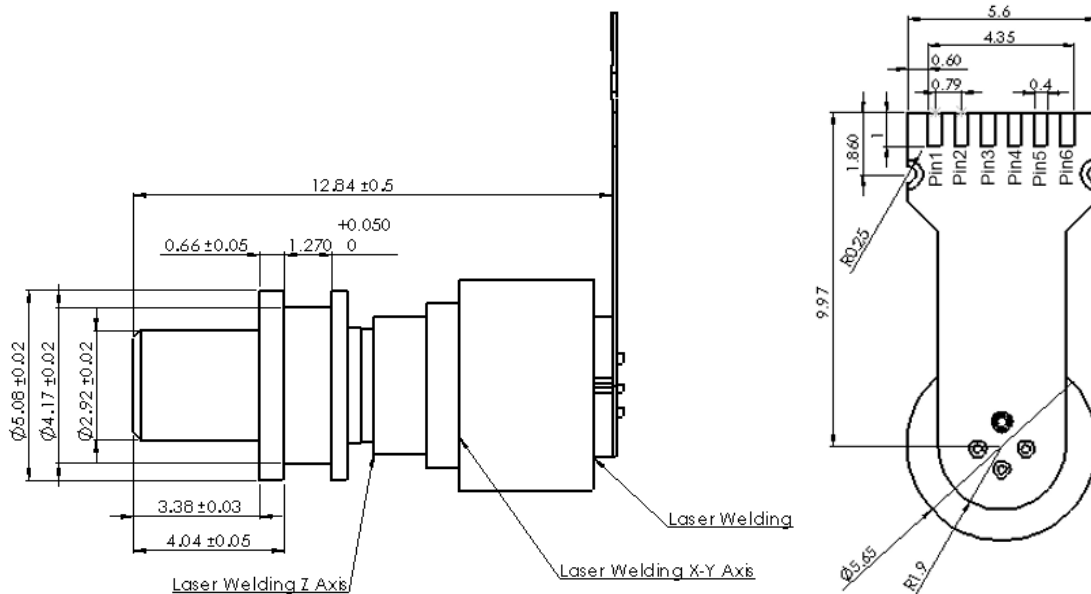
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Units	Min	Typ	Max	test condition
PD Monitor Current	I _{pd}	mA	0.1	-	-	CW, I _{op} = I _{th} +30mA
PD Dark Current	I _d	nA			100	V _r = 3.3V
PD Capacitance	C	pF		10	20	V _r = 5V @ 1MHz

BIGM-93G2-7B LC-TOSA

Dimensions: (mm)

All dimensions are nominal



Flex Board PINOUT (Bottom View)

BIGM-93G2-7B (ENG-01)	
Number	Function
Pin1	No Connect
Pin2	GND
Pin3	LD+
Pin4	LD-
Pin5	GND
Pin6	PD-

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Notice

Version	Date	Status	Description	Signature
1.0	08/22	Initial	BIGM-93G2-7B (ENG-01) Preliminary datasheet	