

1310nm 10Gbps DFB Laser LC TOSA with Flex Bard

BI5D-912x-x Series

TYPE NAME: BI5D-912K-3J6

Product Description:

The LuxNet BI5D-912x-x 10Gb/s DFB Laser LC-TOSA (Transmitter Optical Sub-Assembly) is designed for 10Gb/s Ethernet Network, Data Communication, Fibre Channel Network and other fiber optic communication network applications. This device integrates high performance Distributed Feedback (DFB) laser diode with InGaAs PD as laser power monitor in TO-can. LD threshold current is very low with high performance over operating temperature.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Units	Min	Max	Note
Operating Temperature (Ta)	Top	°C	-40	+85	
Storage Temperature	Tstg	°C	-40	+85	
Solder Reflow Temperature (10 sec)	STEM	°C	-	260	
Laser Reverse Voltage	V _{RL}	V	-	2	
Laser Forward Current	I _{FL}	mA	-	150	
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	15	CW, Ta = 25°C
Forward Voltage	V _f	V	-	-	1.5	CW, Ta = 25°C
Optical Output Power	SMF P _f	dBm	-3.72	-	-1.67	CW, Ta = 25°C, I _{th} + 20mA
Slope efficiency	η	mW/mA	0.0169		0.0272	Average, I _{th} +5 mA to I _{th} +20 mA
Peak Wavelength	λ	nm	1300	1310	1320	Ta = -40~85°C
Tracking error	ΔPf/Pf	dB	-1.5		+1.5	APC, -40~85°C
Side Mode Suppression Ratio	SMSR	dB	30			Ta = 25°C, I _{th} +20mA Scan resolution <0.1nm
Rise/Fall Time	tr ,tf	ps		50		20% to 80%

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.0

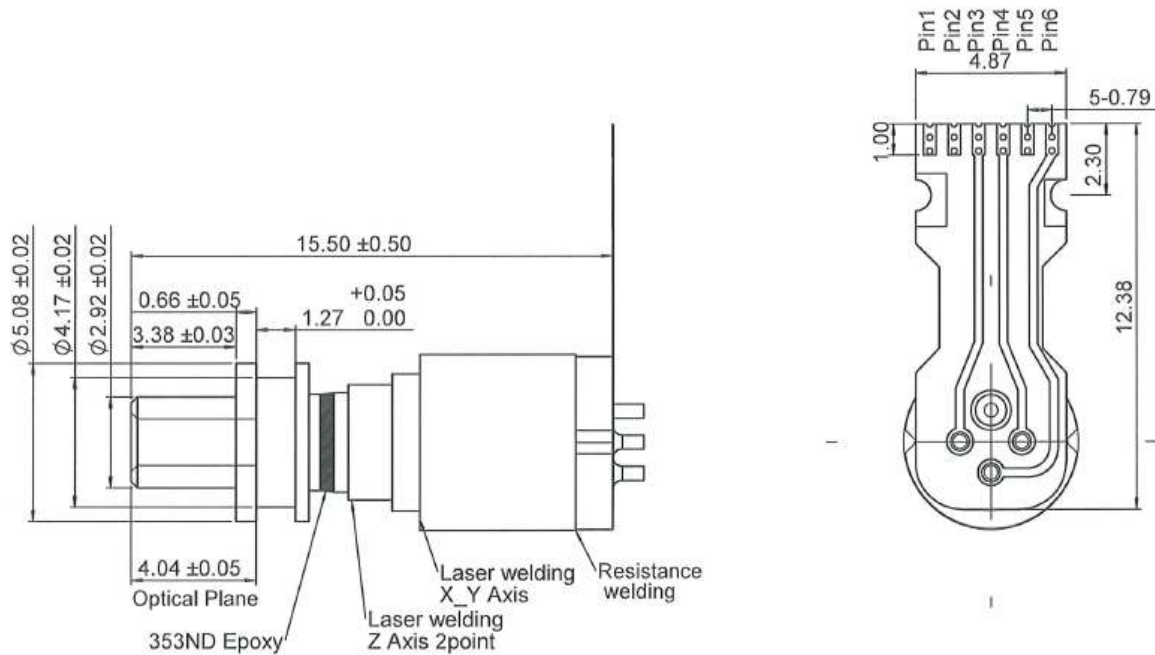
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Units	Min	Typ	Max	test condition
PD Monitor Current	I _{pd}	mA	0.03	0.10	-	CW, I _{th} + 20 mA
PD Dark Current	I _d	nA			100	P _{oc} = 0, V _r = 1.7V
PD Capacitance	C	pF		10	20	V _r = 5V @ 1MHz

BI5D-912K-3J6(LC-TOSA)

Dimensions: (mm)

All dimensions are nominal



Flex Board PINOUT (Bottom View)

BI5D-912K-3J6	
Number	Function
1	NO CONNECT
2	GND/PD+
3	LD+
4	LD-
5	GND/PD+
6	PD-

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Notice

Version	Date	Status	Description	Signature
1.0	2014/06/18	Initial	BI5D-912K-3J6 datasheet Specification	Allen