LUXNET CORPORATION

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1310 nm 1.25/2.5Gbps DFB Lasers TO-Can

BI2A-8191-x Series

TYPE NAME: BI2A-8191-1E2

Product Description:

The LuxNet BI2A-8191-xEx DFB TO-56 assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 1310 nm 2.5Gbps DFB laser, a TO-56 header, a monitoring photodiode, and an Aspherical lens cap. The product is designed for 2.5Gbps short and intermediate-reach optical communication systems. This TO assembly can be integrated with different types of ports that are engaged with a single mode fiber connector to provide good coupling efficiency as light generated by the DFB laser is transmitted into a single mode fiber.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature Tc	T_{op}	°C	-40	85	
Storage Temperature	T_{stg}	°C	-40	100	
Solder Reflow Temperature	T_s	°C		260	10 seconds max.
Maximum Power	P_o	mW		10	
Laser Reverse Voltage	V_{RL}	V		2	
Photodiode Reverse Voltage	V_{RD}	V		15	
Photodiode Forward Current	I_{pd}	mA		10	

Ta = Temperature Ambient , Tc = Temperature Case

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

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	I_{th}	mA	-	13	15	CW, Tc= 25°C
			3	-	30	CW, Tc= -40 ~ 85°C
Forward Voltage	V_f	V	-	1.2	1.5	CW, Tc=25°C, P_o=5mW
Slope Efficiency	SE	mW/mA	0.40	-	-	CW, Tc=25°C , I_{th}+ 10 mA to I_{th}+20 mA
Peak Wavelength	λp	Nm	1290	1310	1330	CW, P_o=5mW ,
Side Mode Suppression Ratio	SMSR	dB	35	-	-	CW, P_o=5mW ,
Rise Time/ Fall Time	Tr/T_f	Ps	-	150/150	-	P_o=5mW, 20-80%

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

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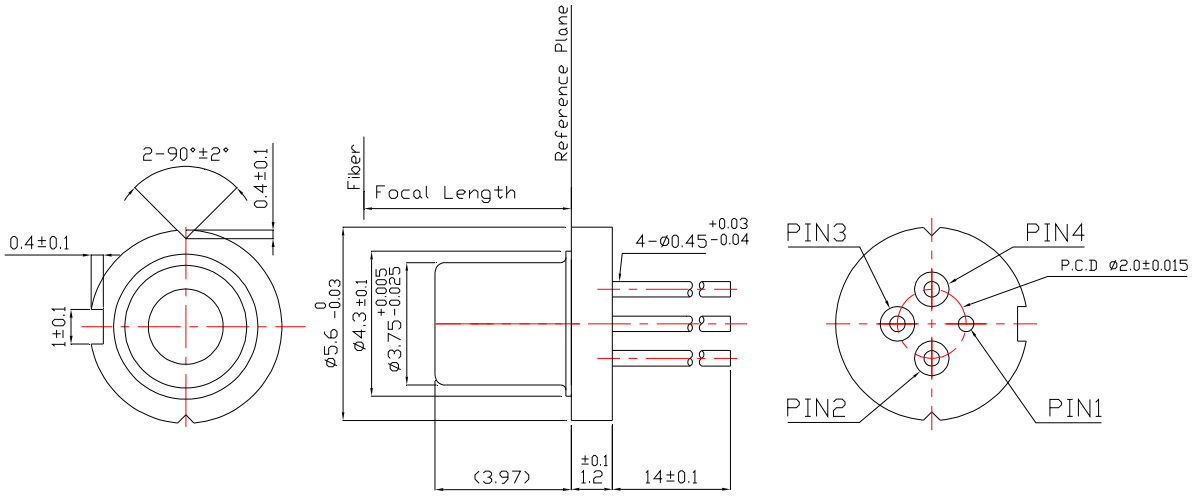
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Monitor Current	I_m	mA	0.10	-	0.80	CW, I_{th}+20 mA,
Dark Current	I_d	nA	-	-	100	P_{oc}= 0, V_r= 1.7V
PD Capacitance	C	pF	-	10	20	V_r= 5V @ 1MHz

BI2A-8191-x (DFB TO-can)

Dimensions: (mm)

All dimensions are nominal



PINOUT

BI2A-8191-1E2 (FL:7.5 ± 0.3mm)	
Number	Function
1	Case Gnd
2	Laser Diode Cathode
3	Photodiode Anode
4	Photodiode Cathode & Laser Diode Anode

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