

1310nm 1.25/2.5Gbps DFB Lasers TO-Can

BI2A-8161-1E2-D Series

TYPE NAME: BI2A-8161-1E2-D

Product Description:

The LuxNet BI2A-8161-1E2-D DFB TO-56 assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 1310nm 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	0.32	0.42	-	CW, Tc=25°C , I _{th} + 10 mA to I _{th} +20 mA
Peak Wavelength	λ _p	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%

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

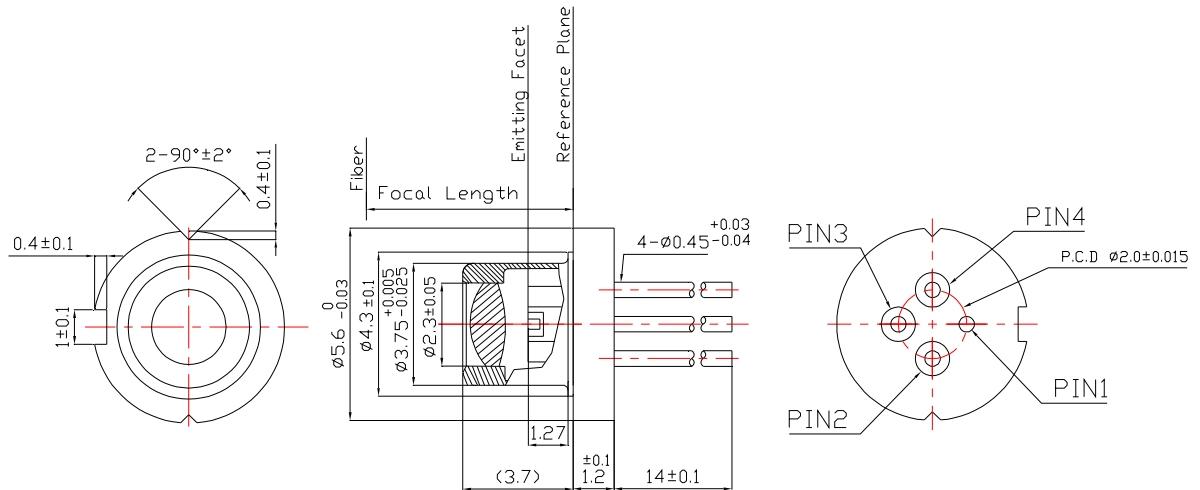
Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Monitor Current	I _m	mA	0.10		1.00	CW, I _{th} +20 mA, Tc= 25°C
Dark Current	I _d	nA			100	P _{oc} = 0, V _f = 1.7V , Tc = 25°C
PD Capacitance	C	pF		10	20	V _f = 5V @ 1MHz

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

BI2A-8161-x (DFB TO-can)

Dimensions: (mm)

All dimensions are nominal



PINOUT

BI2A-8161-1E2-D (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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Notice

Version	Date	Status	Description	Signature
1.0	2014/7/30	Initial	BI2A-8161-1E2-D datasheet spec.	Cherry

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Version 1.0