LUXNET CORPORATION

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1550 nm 1.25/2.5 Gbps FP Lasers TO

FJ2D-81x0-x Series

TYPE NAME: FJ2D-8110-1B、FJ2D-8150-1B*

Product Description:

The LuxNet FJ2D-81x0-x TO-56 header assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 1550 nm 1.25/2.5 Gbps FP laser, a TO-56 header, a monitoring photodiode, and a ball lens cap. The product is designed for 1.25/2.5Gbps short and intermediate-reach optical communication systems. This TO header 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 FP laser is transmitted into a single mode fiber.

Product Specifications:

Absolute Maximum Ratings

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

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

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	I_{th}	mA		10 15	15 30	T=25°C T=0 to 85°C
Forward Voltage	V_f	V		1.2	1.5	T=0 to 85°C, I_{th}+20 mA
Slope Efficiency	η	mW/mA	0.14	0.20		Average, I_{th}+5 mA to I_{th}+20 mA
Peak Wavelength	λ_p	nm	1530	1550	1570	I_{th}+20 mA
Spectral Wavelength (RMS)	$\Delta\lambda$	nm		2	5	I_{th}+20 mA , Peak-RMS, Kr=1,Mean= -20dB, T=-40~85°C
Beam Divergence Angle (//) Beam Divergence Angle (⊥)		Degree		10 15		P_o=5mW, FWHM
Rise Time	τ_r	Ps		150	200	I_{th}+20 mA, 20-80%, T=0 to 85°C
Fall Time	τ_f	ps		150	200	I_{th}+20 mA, 20-80%, T=0 to 85°C
Fiber coupling efficiency		uW	250			CW, I_{th}+20 mA ,SM 9/125 (PC fiber w/o theta alignment)
Relaxation Oscillation Frequency	f_r	GHz	4	7		I_{th}+20 mA

* Specifications are subject to change without notice.
* Screening per customer-specified reject limits is available.
*FJ2D-8150-1B 爲 與 FJ2D-8110-1B Cap 供應商不同，固晶高度不同所建立之料號

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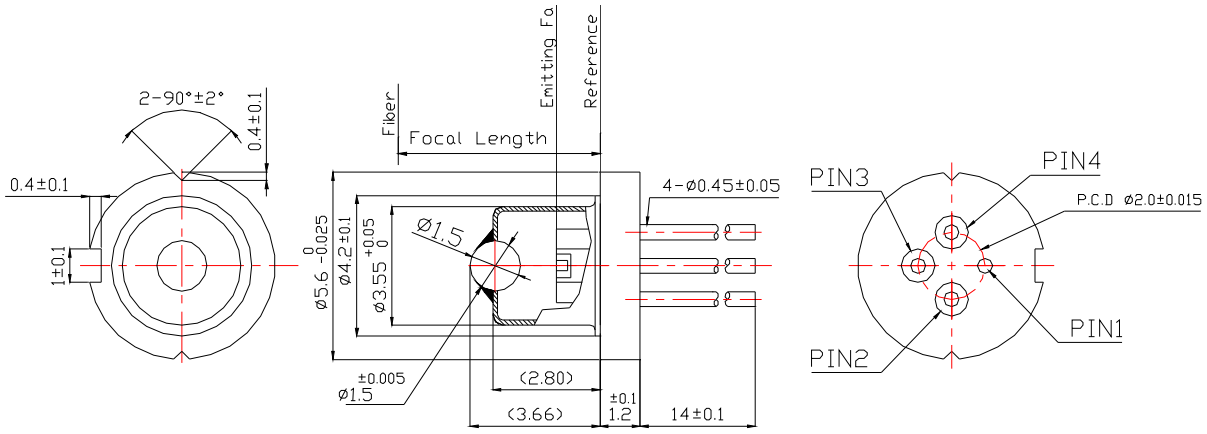
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ	Max	Test Condition
Monitor Current	I_{pd}	mA	0.1	0.20	0.8	Po=Ith+20 mW
Dark Current	I_d	nA			100	P_{oc}= 0, V_r= 1.7V
PD Capacitance	C	pF		10	20	V_r= 5V @ 1MHz

FJ2D-8110-x

Dimensions: (mm)
All dimensions are nominal



PINOUT

	FJ2D-8110-1B (FL:6.3±0.1mm)	FJ2D-8150-1B (FL:6.3±0.1mm)
Number	Function	Function
1	Case Gnd	Case Gnd
2	Laser Diode Cathode	Laser Diode Cathode
3	Photodiode Anode	Photodiode Anode
4	Photodiode Cathode & Laser Diode Anode	Photodiode Cathode & Laser Diode Anode

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