

1310 nm 2.5 Gbps 5pin PIN-TIA

DI2F-8053-x series

TYPE NAME: DI2F-8053-3D

Product Description:

The LuxNet DI2F-8053-x PIN-TIA TO is designed for high-speed, high-performance bi-directional data communication and telecommunication applications. This TO integrates our high-speed 1310 nm PIN detector with a STM16/OC48 trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window. The product is designed for STM16/OC48 optical communication systems. The PIN-TIA TO assembly can be integrated with a bi-directional fiber receptacle housing to receive light from fiber through a receptacle into the PIN detector with high coupling efficiency.

Product Specifications:

Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T _{op}	°C	-40	85	
Storage Temperature	T _{stg}	°C	-40	100	
Solder Reflow Temperature	T _{stg}	°C		260	10 seconds max.
Power Supply Voltage	V _p	V	-0.5	4.5	
Optical Power	P _{in}	dBm		5	

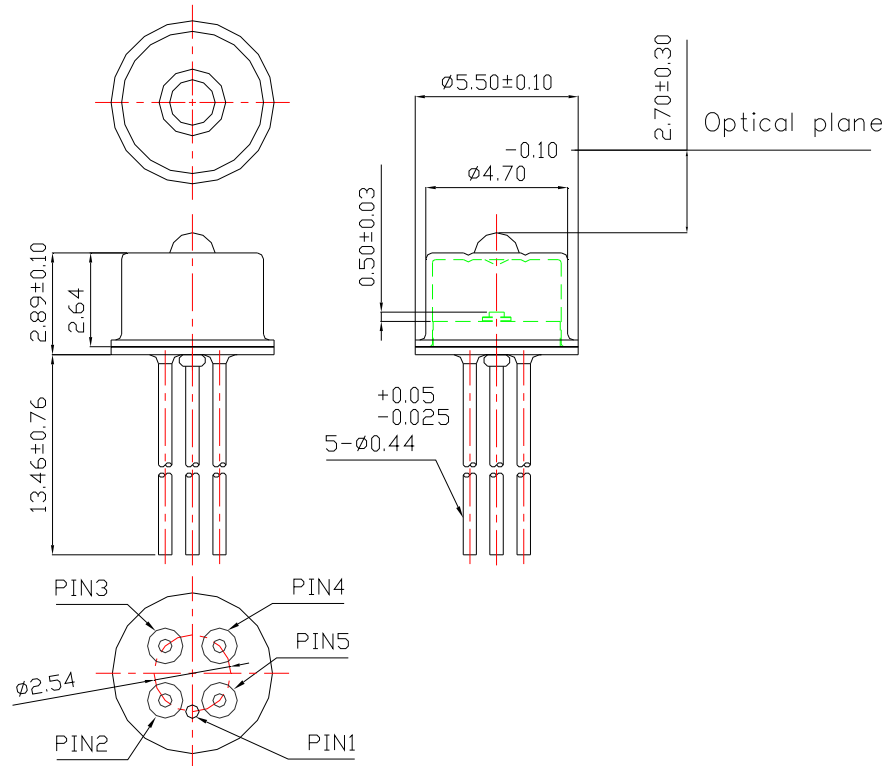
Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V	V	3.0	3.3	3.6	
Supply Current	I _{cc}	mA	15	20	24	P = 0 μW, R _L = 50Ω
Output Voltage (differential)	V _{op}	mV		140	270	P = 10 μW, R _L = 50Ω
Sensitivity	S	dBm		-24	-23	λ=1310nm 2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ ER:9~10dB SM fiber
High Frequency Bandwidth (3dB)	BW	MHz		1700		R _L = 50Ω
Low Frequency Bandwidth (3dB)	BW _l	kHz		30		R _L = 50Ω
Wavelength	λ	nm	1100	1310	1650	
Rise/Fall Time	τ _r /τ _f	ps		150/150	250/250	V _{cc} =3.3V; (20%-80%)
Overload Power	P _{load}	dBm	0			2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ ER:9~10dB

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

D12F-8053-3D (PIN-TIA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

D12F-8053-3D	
Pin Number	Function
1	GND
2	Non-inverted Output (D+)
3	Vcc
4	Current source (RSSI)
5	Inverted Output (D*)

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