

1310nm 1.25Gbps 5pin PIN-TIA

DI1F-8053-3x Series

TYPE NAME: DI1F-8053-3D

Product Description:

The LuxNet DI1F-8053-x is designed for high-speed, high-performance GE-PON communication applications. This device integrates our high-speed 1310 nm PIN detector with a 1.25G trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window. The PIN-TIA 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 _s	°C		260	10 seconds max.
Power Supply Voltage	V _p	V	-0.5	4.5	
Optical Power	P _{in}	dBm		5	

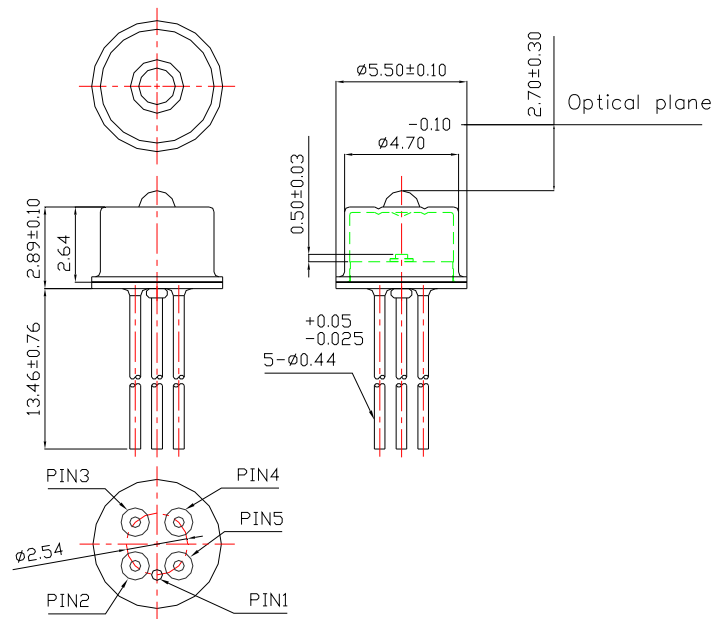
Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V _{cc}	Volts	3.0	3.3	3.6	
Supply Current	I _{cc}	mA	23	28	35	V _{cc} = 3.3V
Output Voltage (differential)	V _{out}	mV		210	270	R _L = 100Ω
Responsivity	R	KV/W		23		λ=1310nm, P = 1.5 μW, AC Coupled, R _L = 50Ω
Sensitivity	S	dBm		-29	-28	λ=1310nm, 2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ , ER=9-10dB
High Frequency Bandwidth (-3dB)	BW	MHz	730	1000		R _L = 50Ω
Low Frequency Bandwidth	BW _l	kHz		70	115	R _L = 50Ω
Wavelength	λ	nm	1100	1310	1650	
Rise/Fall Time	τ _r /τ _f	ps	200	300	400	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.

DI1F-8053-3D (PIN-TIA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

DI1F-8053-3D	
Number	Function
1	Gnd
2	Non-Inverted Output(D+)
3	Vcc
4	RSSI (Current Source)
5	Inverted Output(D*)

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