LUXNET CORPORATION

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1310/1490nm 1.25Gbps 4Pin PIN-TIA

DI1F-8053-6P

TYPE NAME: DI1F-8053-6P

Product Description:

The LuxNet DI1F-8053-6P is designed for high-speed, high–performance GE-PON communication applications. This device integrates our high-speed InGaAs 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. This model is designed exclusively for Oplink with an additional 300pF SLC under VCC.

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		°C		260	10 seconds max.
Power Supply Voltage	V_P	V		4	
Optical Power	P_{in}	dBm		3	

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	P_{in} = 0 μW, R_L = 50Ω
Output Voltage (Differential)	V_{out}	mV		30	70	P_{in} = 1.5 μW, R_L = 100Ω
Responsivity	R	KV/W		23		λ=1310nm P_{in} = 1.5 μW, AC Coupled, R_L = 50Ω
Upper -3dB Bandwidth	BW	MHz	730	812	893	R_L = 50Ω
Low frequency cut off	LFC	kHz	50	70	115	P_{in} = 1 μW
Sensitivity	S	dBm		-29	-27	λ=1490nm 2^7 - 1 PRBS, BER= 10^{-12}, ER=9~10dB
Saturation Power	Psat	dBm	0			
Wavelength	λ	nm	1100	1310	1650	
Rise/Fall Time	τ_r/τ_f	ps	200	300	400	20%-80%
Output impedance (Single end)	Rout	Ω	40	53	60	

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

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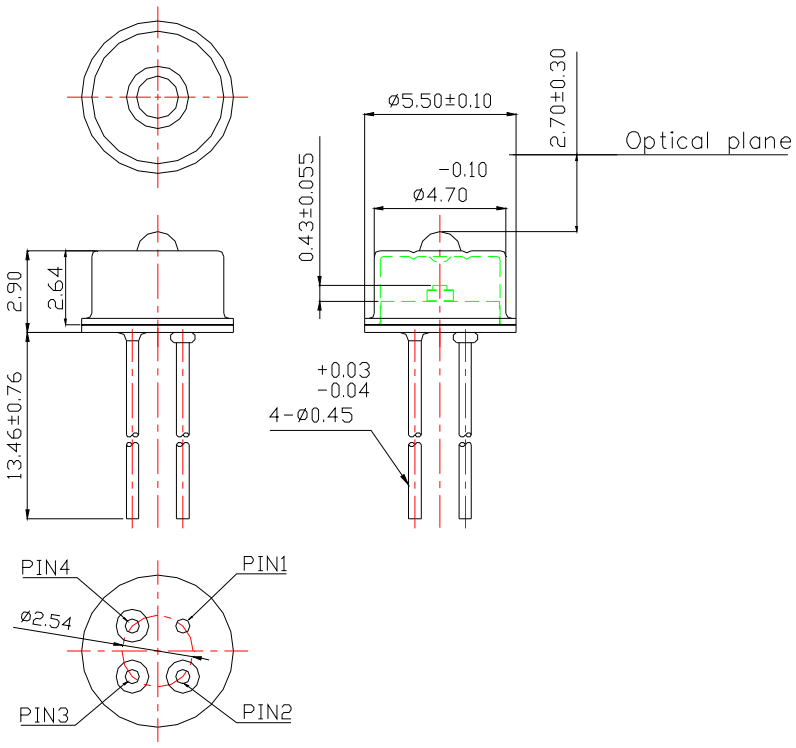
Dimensions: (mm)
All dimensions are nominal



PINOUT

	DI1F-8053-6P
Number	Function
1	Gnd
2	Vcc
3	Inverted Output (D*)
4	Non-Inverted Output (D)

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