

1310 nm 622 Mbps 5-Pin PIN-TIA

DI7F-8052-3x series

TYPE NAME: DI7F-8052-3D

Product Description:

The LuxNet DI7F-8052-x 5-pin PIN-TIA is designed for high-speed, high-performance data communication and telecommunication applications. This PIN-TIA provides special digital diagnostic capability for transceivers with a wide dynamic range of input optical power. This device integrates our high-speed 1310 nm PIN detector with an STM4/OC12 trans-impedance amplifier (TIA), capacitors, and a TO-46 5-pin header with cap window. The product is designed for OC-12 long distance optical communication systems. The PIN-TIA assembly can be integrated with different types of ports engaged with a fiber connector to transmit the 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	6.5	
Optical Power	P _{in}	dBm		5	

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

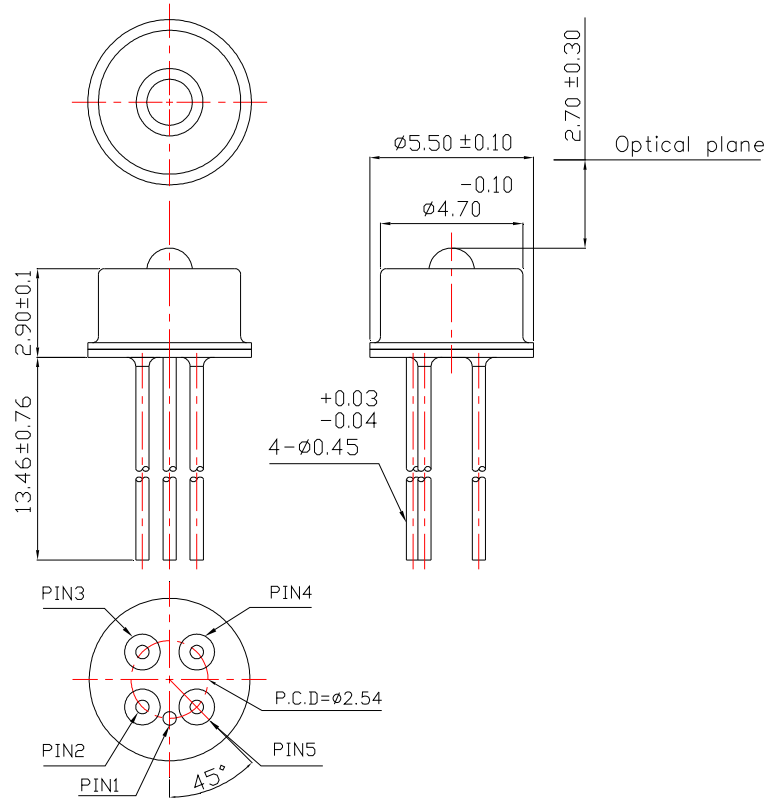
Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V _{cc}	Volts	3.0	3.3	3.6	
Supply Current	I _{cc}	mA	23	28	35	P _{in} = 0 μW, V _{cc} = 3.3V
Output Voltage (differential)	V _{out}	mV	-	210	270	P _{in} = 32 μW, R _L = 50Ω
Responsivity	R	A/W	0.90	-	-	λ=1310nm
Sensitivity	S	dBm	-	-	-30	λ=1310nm, PRBS = 2 ²³ -1, BER= 10 ⁻¹⁰ , ER= 9~10dB
Peak Wavelength	λ _p	nm	1100	1310	1600	
Rise/Fall Time	τ _r /τ _f	ps	-	550/ 550	-	V _{cc} =3.3V (20%-80%)
Overload		dBm	0	-	-	λ=1310nm, PRBS = 2 ²³ -1, BER= 10 ⁻¹⁰ , ER= 9~10dB

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.0

DI7F-8052-x (PIN-TIA)
Dimensions: (mm)

All dimensions are nominal

PINOUT

Pin Number	DI7F-8052-3D Function
1	Gnd
2	Non-Inverted Output (D)
3	Vcc
4	RSSI(Current Source)
5	Inverted Output(D*)

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* Screening per customer-specified reject limits is available.

1310 nm 622 Mbps 5-Pin PIN-TIA (Preliminary)

Notice

Version	Date	Status	Description	Signature
1.0	2012/08/21	Initial	DI7F-8052-3D(Preliminary) Spec.	John