

1310 nm 155 Mbps PIN-TIA (3.3V/5.0V)

DI6F-8083-x Series

TYPE NAME: DI6F-8083-6A1

Product Description:

The LuxNet DI6F-8083-x (3.3V/5.0V) PIN-TIA is designed for low cost, high-speed, high-performance HDMI applications. This device integrates our high-speed 1310 nm PIN detector with a 155M transimpedance amplifier (TIA) and capacitors into a TO-46 header with cap window. 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	0	70	
Storage Temperature	T _{stg}	°C	-40	100	
Solder Reflow Temperature	T _{stg}	°C		260	10 seconds max.
Power Supply Voltage	V _p	V		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	5.0	
Supply Current	I _{cc}	mA			32	P _{in} = 0 μW, R _L = 50Ω
Output Voltage (differential)	V _{out}	mV			1500	P _{in} = 10 μW, R _L = 50Ω
Responsivity	R	KV/W		55		λ=1310nm P _{in} = 1 μW, AC Coupled to R _L = 50Ω
Upper -3dB Bandwidth	BW	MHz	110	140		R _L = 50Ω
Peak Wavelength	λ _p	nm	1100	1310	1650	
Sensitivity	S	dBm		-36	-34	λ=1310nm 2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰
Rise/Fall Time	τ _r /τ _f	ns	--	--	2.6/2.6	(20%-80%)

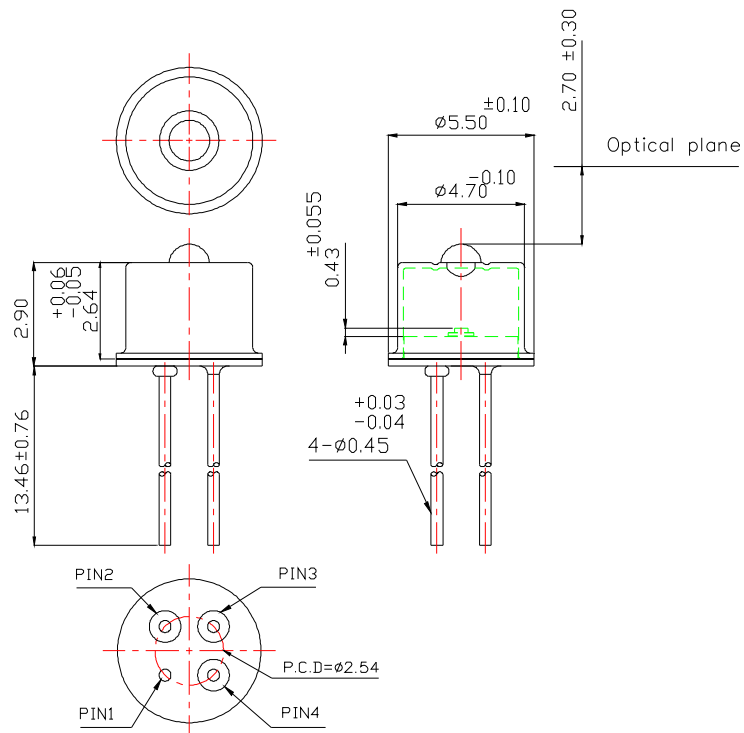
* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.1

DI6F-8083-6A1

Dimensions: (mm)
All dimensions are nominal



PINOUT

DI6F-8083-6A1	
Number	Function
1	GND
2	Vcc
3	Inverted Output (D*)
4	Non-Inverted output (D)

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