1310 nm 155 Mbps PIN-TIA

DI6F-8053-6 Series

TYPE NAME: DI6F-8053-6

Product Description:

The LuxNet DI6F-8053-6 PIN-TIA is designed for low cost, high-speed, high–performance fiber optical communication applications. This device integrates our high-speed 1310 nm PIN detector with a 155M trans-impedance 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	-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		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	14	23	32	$P_{in} = 0\ \mu W$, $R_L = 50\Omega$
Output Voltage (differential)	V_{out}	mV			1500	$P_{in} = 10\ \mu W$, $R_L = 50\Omega$
Responsivity	R	KV/W		30		λ=1310nm $P_{in} = 1\ \mu W$, AC Coupled to $R_L = 50\Omega$
Upper -3dB Bandwidth	BW	MHz	110	140		$R_L = 50\Omega$
Peak Wavelength	λ_p	nm	1100	1310	1650	
Sensitivity	S	dBm			-36	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 1.2

DI6F-8053-6

Dimensions: (mm)

All dimensions are nominal
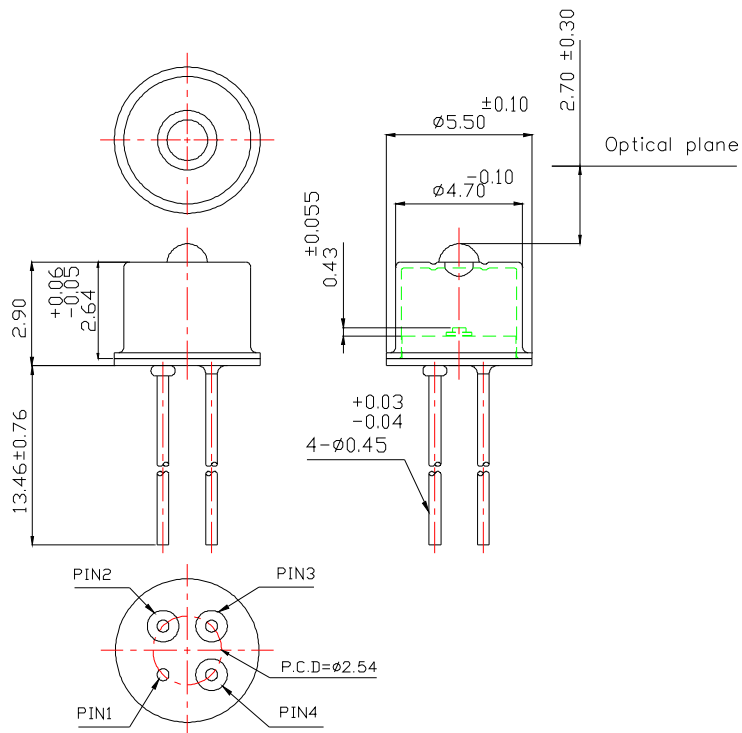
PINOUT

DI6F-8053-6	
Number	Function
1	GND
2	Vcc
3	Inverted Output (D*)
4	Non-Inverted output (D+)

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