1310 nm 155 Mbps PIN-TIA (3.3V)

DI6S-8082-2

TYPE NAME: DI6S-8082-2

Product Description:

The LuxNet DI6S-8082-2 (3.3V) PIN-TIA is designed for high-speed, high–performance data communication and telecommunication applications. This device integrates our high-speed 1310 nm PIN detector with a STM1/OC3 trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window. The product is designed for OC-3 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		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	3.5	
Supply Current	I_{cc}	mA			32	$P_{in} = 0\ \mu W$, $R_L = 50\Omega$
Output Voltage (differential)	V_{out}	mV		200		$P_{in} = 10\ \mu W$, $R_L = 50\Omega$
Responsivity	R	KV/W		55		λ=1310nm $P_{in} = 1\ \mu W$, AC Coupled to $R_L = 50\Omega$
Upper -3dB Bandwidth	BW	MHz	110	140		$R_L = 50\Omega$
Sensitivity	S	dBm		-37	-36	λ=1310nm $2^{23} - 1$ PRBS, BER= 10^{-10}
Peak Wavelength	λ_p	nm	1100	1310	1650	
Rise/Fall Time	τ_r/τ_f	ns		1.6/1.6	2.0/2.0	(20%-80%)

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

Version 2.2

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Dimensions: (mm)
All dimensions are nominal
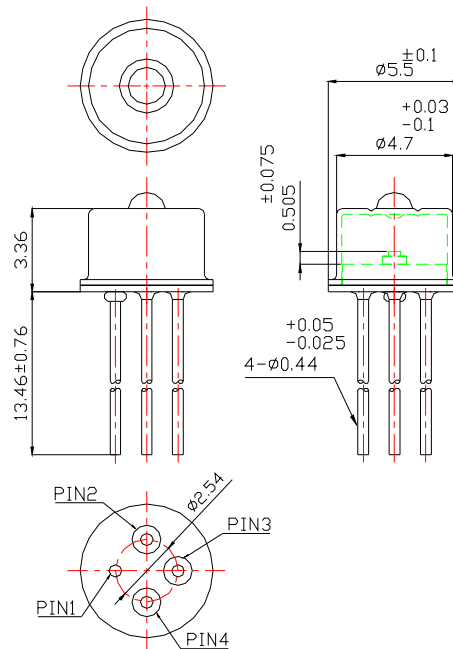
PINOUT

DI6S-8082-2	
Number	Function
1	Gnd
2	Vcc
3	Inverted Output
4	Non-Inverted Output

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