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1310 nm 155 Mbps 5pin PIN-TIA(3.3V/5/0V)

DI6B-8083-x Series

TYPE NAME: DI6B-8083-KC

Product Description:

The LuxNet DI6B-8083-x (3.3V/5.0V) 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 5Pin 57degree 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	5.0	
Supply Current @3.3V @5.0V	I _{cc}	mA	14 15	23 24	36 32	P _{in} = 0 μW, R _L = 50Ω
Output Voltage (differential)	V _{out}	mV			1200	P _{in} = 10 μW, R _L = 50Ω
Responsivity	R	KV/W		153		λ=1310nm P _{in} = 1.5 μW, AC Coupled to R _L = 50Ω
Upper -3dB Bandwidth	BW	MHz	93	110		R _L = 50Ω
Peak Wavelength	λ _p	nm	1100	1310	1650	
Sensitivity	S	dBm		-37	-36	λ=1310nm 2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰
Rise/Fall Time	τ _r /τ _f	ns	--	--	2.6/2.6	(20%-80%)

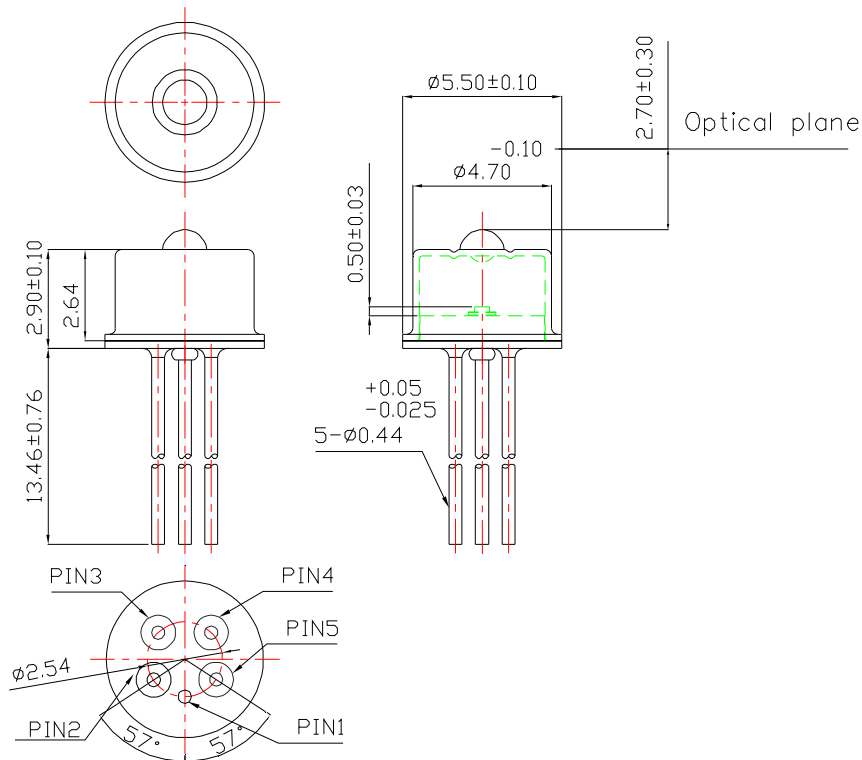
* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.1

DI6B-8083-KC(PIN-TIA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

DI6B-8083-KC	
Number	Function
1	GND
2	Non-inverted Output (D+)
3	Vcc
4	Current Sink(I _{mon})
5	Inverted Output (D*)

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* Screening per customer-specified reject limits is available.