

## 1310nm 10Gbps 5Pin PIN-TIA

### MI5D-803x-x Series

**TYPE NAME: MI5D-8031-KD**

#### Product Description:

The LuxNet MI5D-803x-x is designed for high-speed, high-performance SONET/SDH/Fiber channel applications. This device integrates our high-speed 1310 nm PIN detector with a 10G trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window. The PIN-TIA TO assembly can be integrated with a receptacle housing to receive light through the PIN detector with high coupling efficiency.

#### Product Specifications:

##### Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T <sub>op</sub>	°C	-40	85	
Storage Temperature	T <sub>stg</sub>	°C	-40	85	
Lead Solder Temperature	T <sub>s</sub>	°C		260	10 Seconds Max
Power Supply Voltage	V <sub>p</sub>	V	-0.5	4	
Optical Power	P <sub>in</sub>	dBm		5	

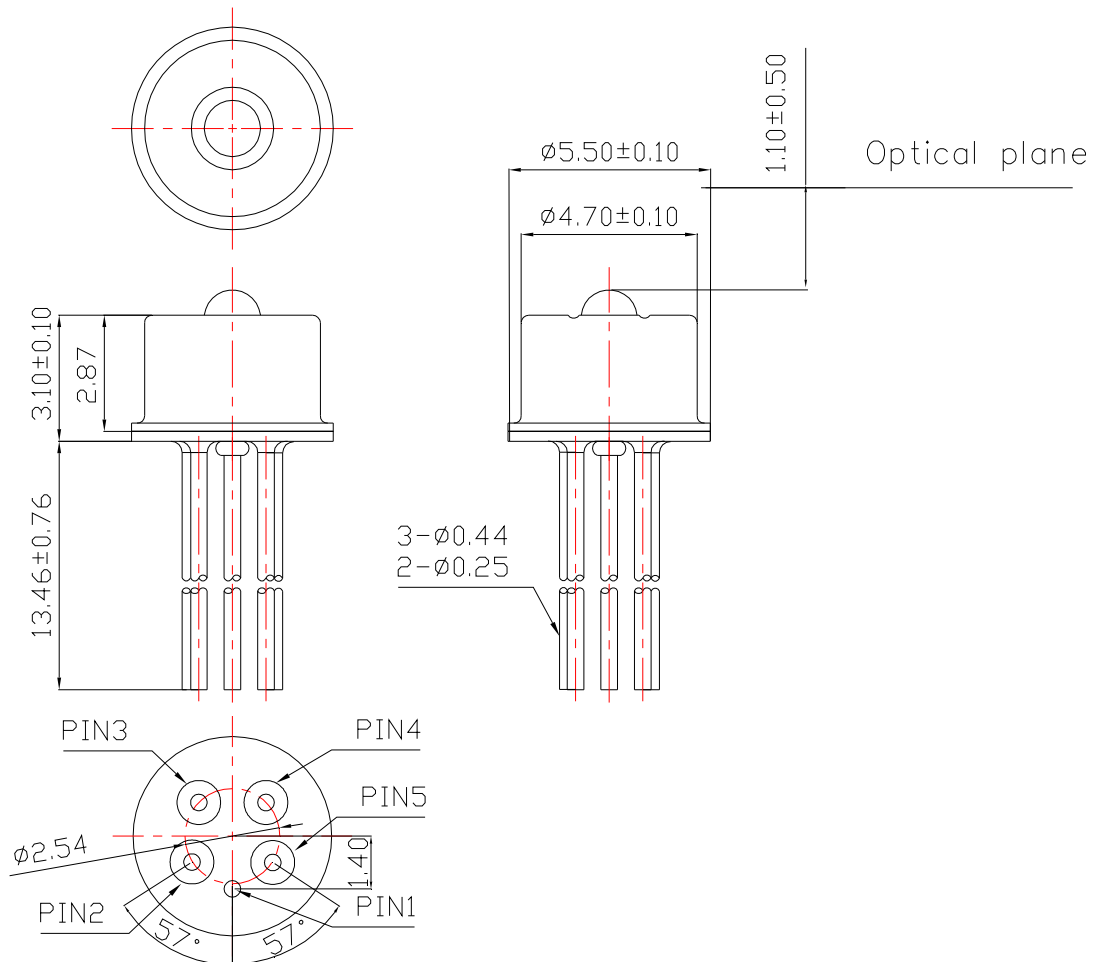
##### Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V <sub>cc</sub>	Volts	2.97	3.3	3.63	
Supply Current	I <sub>cc</sub>	mA	44	58	72	V <sub>cc</sub> =3.3V
Responsivity	R	A/W	0.85			λ =1310nm
Sensitivity	S	dBm			-15	λ =1310nm, Speed=10.3125Gbps , PRBS=2 <sup>31</sup> -1,BER=10 <sup>-12</sup> , ER=5.0dB
Wavelength	λ	nm	1260	1310	1620	
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>	ps		40	50	(20%-80%)
Overload Power	Pload	dBm	0.5			λ =1310nm, PRBS=2 <sup>31</sup> -1,BER=10 <sup>-12</sup>

Note 1: The Sensitivity Test is under LuxNet's Test Board and ROSA With Flex Board.

## MI5D-8031-KD (PIN-TIA)

**Dimensions:** (mm)  
*All dimensions are nominal*



### PINOUT

MI5D-8031-KD	
Number	Function
1	GND
2	Non-Inverted output(D+)
3	VCC
4	Current source(RSSI)
5	Inverted output(D*)

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



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### Notice

Version	Date	Status	Description	Signature
1.0	2013/01/02	Initial	MI5D-8031-KD Specification	Maggie

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Version 1.1