

## 25G 1310/1550nm PIN-TIA 5pin TO-46 (Preliminary)

### L-TR-IM99-xx Series

#### TYPE NAME: L-TR-IM99-23

#### Product Description:

The LuxNet L-TR-IM99-x is designed for high-speed, high-performance 25G Ethernet applications. This device integrates our high-speed 1310nm PIN detector with a 25G trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window. The PIN-TIA(GN1086) assembly can be integrated with a fiber receptacle housing to receive 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	Top	°C	-40	85	Case Temp.
Storage Temperature	Tstg	°C	-40	85	
TIA supply voltage	Vcc	V		4	Tc = 25°C
Solder Reflow Temp.	Tsrt	°C		270	10sec Max.

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

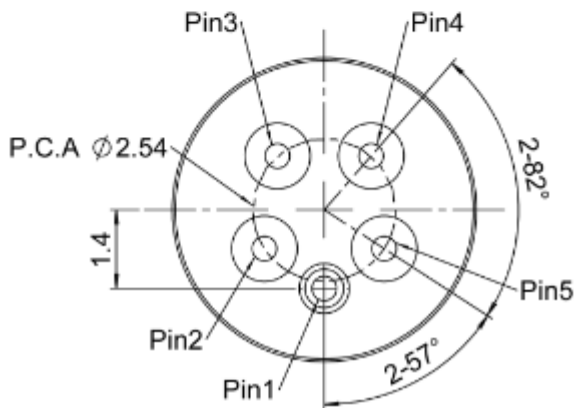
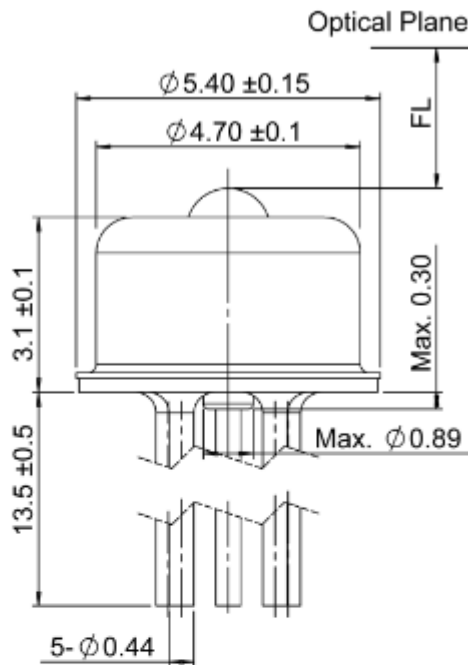
Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Power Supply Voltage	Vcc	V	2.97	3.3	3.53	
Supply Current	Icc	mA	-	29	-	Vcc=3.3V, no light
Wavelength	$\lambda$	nm	1260	1310	1620	
Bit Rate Selection (25G)	RSSI <sub>VI</sub>	V	-0.3	-	0.8	RSSI input
Bit Rate Selection (10G)			2.4		Vcc+0.3	
Low Bandwidth (-3dB)	L <sub>BW</sub>	kHz	-	-	100	
RSSI slope	RSSI <sub>SE</sub>	A/A	-	1:4	-	
Responsivity	Res	A/W	0.80	-	-	
Sensitivity	Sen	dBm	-	-	-12.0	ER=4.0dB, 25.78Gbps PRBS 2 <sup>31</sup> -1, BER=1E-12
			-	-	-14.0	ER=4.0dB, 10.3125Gbps PRBS 2 <sup>31</sup> -1, BER=1E-12
Overload	Pmax	dBm	+2.5	-	-	ER=4.0dB, 25.78Gbps PRBS 2 <sup>31</sup> -1, BER= Error free

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Overload	Pmax	dBm	+2.5			ER=4.0dB, 10.3125Gbps PRBS 2 <sup>31</sup> -1, BER= Error free
Output impedance	Rout	Ω	-	50	-	Singe Ended
Focal Length	FL	mm	0.8	1.1	1.4	

### L-TR-IM99-23

Dimensions: (mm)

All dimensions are nominal



PINOUT(BOTTOM VIEW)	
PIN NUMBER	FUNCTION
1	GND
2	D+
3	VCC
4	RSSI
5	D-

\* Specifications are subject to change without notice.