

## 850nm 25Gbps VCSEL TO (Preliminary)

### L-TT-IV08-00 Series

#### TYPE NAME: L-TT-IV08-00

#### Product Description:

The LuxNet L-TT-IV08-00 TO header is designed for a high-speed, high-performance data communication and Fiber channel applications. This device is integrated with an 850nm VCSEL, a flat cap, and 7pin TO header. The product is designed for 25Gbps application, transceiver modules and systems. The TO-can can be integrated with different types of ports that are engaged with a fiber connector to provide good coupling efficiency as light generated by the VCSEL is transmitted into multimode fiber.

#### Product Specifications:

##### Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	$T_{op}$	°C	-5	75	
Storage Temperature	$T_{stg}$	°C	-40	85	
Soldering Temperature	$T_s$	°C	-	260	10 seconds max.
Peak Forward Current	$I_{max}$	mA	-	12	
VCSEL Reverse Voltage	$V_r$	V	-	5	

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

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	$I_{th}$	mA	-	0.7	1.2	
			-	-	1.6	$T_c=70^\circ\text{C}$
Forward Voltage	$V_f$	V	-	-	2.5	$I_{op}=6.5\text{mA}$
Slope Efficiency	$\eta$	W/A		0.35		$I=I_{th}+1\text{mA}$ , 50um
Differential Series Resistance	$R_s$	$\Omega$	-	-	120	$I_{op}=6.5\text{mA}$
Peak Wavelength	$\lambda_p$	nm	840	850	860	$I_{op}=6.5\text{mA}$
Spectral bandwidth (RMS)	$\Delta\lambda$	nm	-	-	0.6	$I_{op}=6.5\text{mA}$
Rise Time / Fall Time	$\tau_r/\tau_f$	ps	-	20		$I_{op}=6.5\text{mA}$ 20-80%

\* Specifications are subject to change without notice.

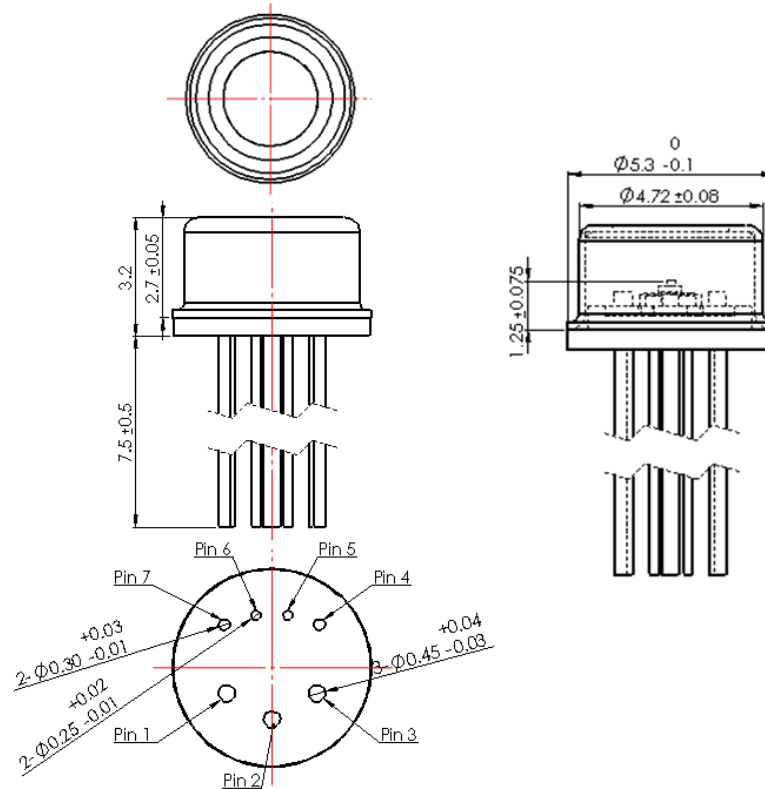
\* Screening per customer-specified reject limits is available.

Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Monitor Current	$I_{pd}$	mA	0.1			@6.5mA @ 25°C
Dark Current	$I_d$	nA	-	-	6	$V_r = 40 @ 25^\circ C$
PD Capacitance	C	pF	-	20	-	$V_r = 5V @ 1MHz$

## L-TT-IV08-00 (LC-TOSA)

**Dimensions:** (mm)

*All dimensions are nominal*


Flex Board PINOUT (Bottom View)

L-AT-IV08-00	
Number	Function
Pin1	PD+
Pin2	GND
Pin3	PD-
Pin4	NC
Pin5	LD-
Pin6	LD+
Pin7	NC

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