

25Gbps DFB Laser TO (Preliminary)

L-TT-ICXX-05

TYPE NAME: L-TT-ICXX-05

Product Description:

The LuxNet L-TT-ICXX-05 TO-56 header assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 25Gbps DFB laser, a TO-56 header, a monitoring photodiode, and an aspherical lens cap. This TO header assembly can be integrated with different types of ports that are engaged with a single mode fiber connector to provide good coupling efficiency as light generated by the DFB laser is transmitted into a single mode fiber.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Units	Min	Max	Note
Operating Temperature (case)	T _c	°C	-40	+85	Case temperature
Storage Temperature	T _{stg}	°C	-40	+85	
Soldering Temperature (10 sec)	STEM	°C	-	260	5 seconds max.
Laser Reverse Voltage	V _{RL}	V	-	2	
Laser Forward Current	I _{FL}	mA	-	100	
Photodiode Reverse Voltage	V _{RD}	V	-	2	
Photodiode Forward Current	I _{pd}	mA	-	10	

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

Parameter	Symbol	Units	Min	Typ	Max	Test condition
Threshold Current	I _{th}	mA	-	8		CW, T _c = 25°C
					30	
Forward Voltage	V _f	V	-	-	2	CW, T _c = 25°C, I _{op} = 35mA
Slope Efficiency	η	mW/mA	0.20			CW, T _c = 25°C, I _{th} + 10 mA to I _{th} +20 mA
Fiber Coupling Power	P _f	mW		TBD		CW, T _c = 25°C, I _{op} = 35mA
Peak Wavelength	λ	nm	1260	1270	1280	T _c = -40 ~ 85°C
			1280	1290	1300	
			1300	1310	1320	
			1320	1330	1340	
Side Mode Suppression Ratio	SMSR	dB	35			T _c = 25°C, I _{op} = 35mA Scan resolution <0.1nm
Focal Point of Fiber Coupling	D _f	mm	(7.0)	7.5	(8.0)	CW, maximum coupling to SMF (9/125), PC fiber without theta alignment
Rise Time / Fall Time	τ _r /τ _f	ps	-	20/20		I _{op} = 35mA 20-80%

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

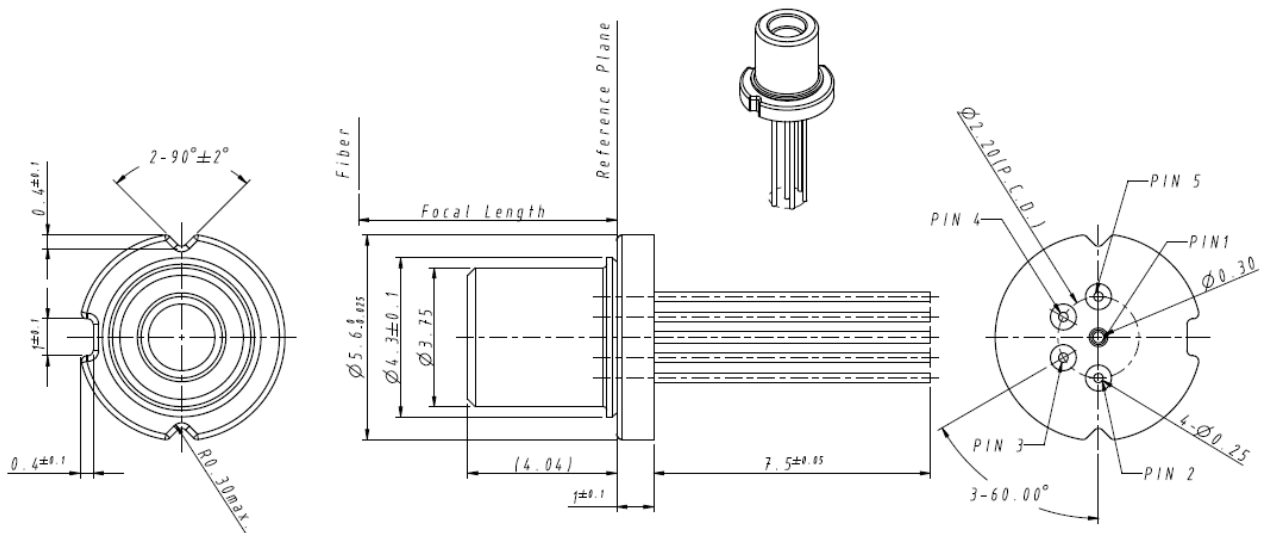
- * Specifications are subject to change without notice.
- * Screening per customer-specified reject limits is available.

Parameter	Symbol	Units	Min	Typ	Max	test condition
PD Monitor Current	I _{pd}	mA	0.1	-	-	CW, I _{op} = 35mA
PD Dark Current	I _d	nA			100	P _{oc} = 0, V _r = 1.7V
PD Capacitance	C	pF		10	20	V _r = 5V @ 1MHz

L-TT-ICXX-05 (TO-can)

Dimensions: (mm)

All dimensions are nominal



Flex Board PINOUT (Bottom View)

L-TT-ICXX-05	
Number	Function
Pin1	GND/ Photodiode Anode
Pin2	Laser Diode Cathode (LD-)
Pin3	Non-Connect
Pin4	Photodiode Cathode (PD-)
Pin5	Laser Diode Anode (LD+)

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

25Gbps DFB Laser TO (Preliminary)

Notice

Version	Date	Status	Description	Signature
1.0	2018/07/19		25G DFB TO56_FL=7.5_I-temp.	Daniel Lee
2.0	2018/08/03		Changed the wavelength range for LR and BiDi	Daniel Lee
2.1	2018/08/10		Changed the SMSR from 30dB to 35dB	Daniel Lee
2.2	2018/08/17		Changed the wavelength range for LR and BiDi by $\pm 10\text{nm}$	Daniel Lee