

1310nm 25Gbps DFB Laser TO (Preliminary)

L-TT-ID31-05

TYPE NAME: L-TT-ID31-05

Product Description:

The LuxNet L-TT-ID31-05 TO-56 header assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 1310 nm 25Gbps DFB laser, a TO-56 header, a monitoring photodiode, and a ball 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	
Storage Temperature	T _{stg}	°C	-40	+85	
Soldering Temperature (10 sec)	STEM	°C	-	260	
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	CW, T _c = 85°C
Forward Voltage	V _f	V	-	-	2	CW, T _c = 25°C, I _{op} = I _{th} +30mA
Slope Efficiency	η	mW/mA	0.20	-	-	CW, T _c = 25°C, I _{op} = 40 to 50mA
Peak Wavelength	λ	nm	1300	1310	1320	-40~85C
Side Mode Suppression Ratio	SMSR	dB	30	-	-	T _c = 25°C, I _{op} = I _{th} +30mA Scan resolution <0.1nm
Focal Length of Fiber Coupling	FL	mm	6.6	6.8	7.0	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} = I _{th} +30mA 20-80%

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.0

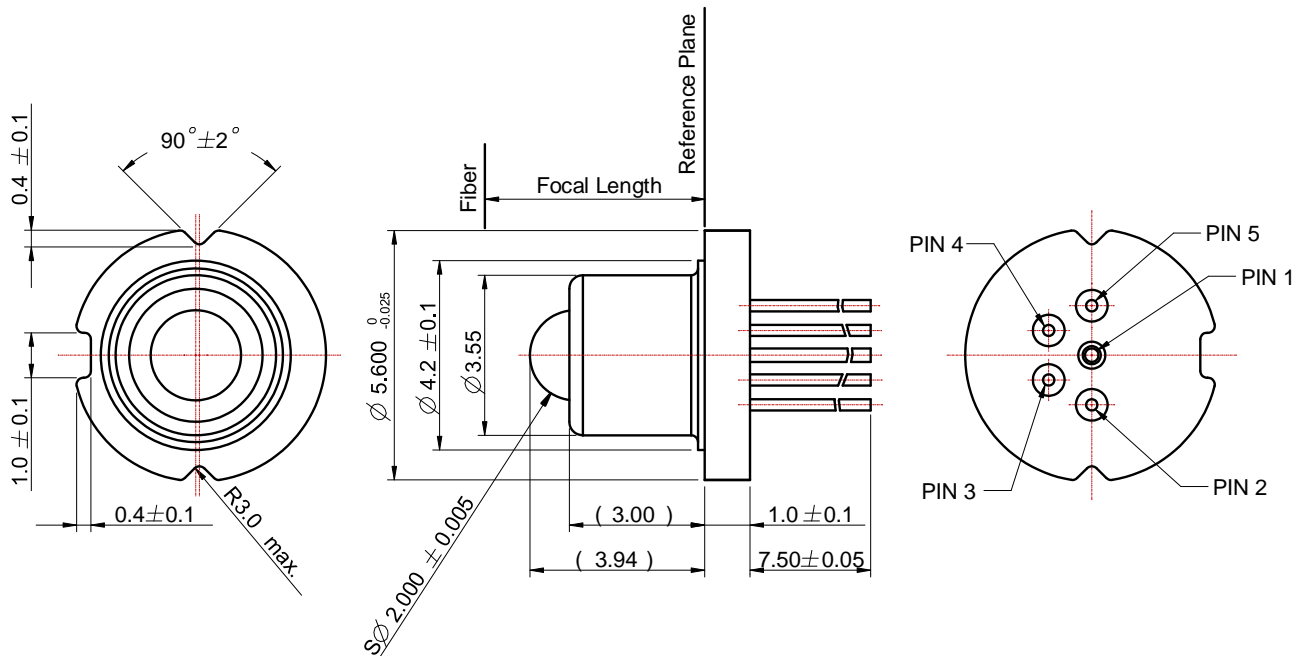
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Units	Min	Typ	Max	test condition
PD Monitor Current	I _{pd}	mA	0.1	-	-	CW, I _{op} = I _{th} +30mA
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-ID31-05 (TO-can)

Dimensions: (mm)

All dimensions are nominal



Flex Board PINOUT (Bottom View)

L-TT-ID31-05	
Number	Function
Pin1	GND/ Photodiode Anode
Pin2	Laser Diode Cathode (LD-)
Pin3	Photodiode Cathode (PD-)
Pin4	Non-Connect
Pin5	Laser Diode Anode (LD+)

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