

1270 nm 10 Gbps DFB TO-can Package

L-TT-ED27-xx Series

TYPE NAME: L-TT-ED27-00

Product Description:

The LuxNet L-TT-ED27-xx DFB TO-56 assembly is designed for high speed, high performance data communication and telecommunication applications. This device is integrated with a 1270 nm 10Gbps DFB laser, a TO-56 header, a monitoring photodiode, and a Aspherical lens cap. The product is designed for 10Gbps short and intermediate-reach optical communication systems. This TO header assembly can be integrated with different types of ports providing good coupling efficiency with single-mode fiber.

Product Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature (Tc)	T _{op}	°C	-40	85	
Storage Temperature	T _{stg}	°C	-40	85	
Solder Reflow Temperature	STEM	°C		260	10 seconds max.
Optical Output Power	P _o	mW		15	
Laser Reverse Voltage	V _{RL}	V		2	
Photodiode Reverse Voltage	V _{rd}	V		20	
Photodiode Forward Current	I _{pd}	mA		10	

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

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Threshold Current	I _{th}	mA		8	15	CW, Tc= 25°C
Operating Voltage	V _{op}	V		1.2	1.5	CW, I _{th} +20mA
Slope Efficiency	SE	mW/mA	0.20	0.40		Average, I _{th} + 5 mA to I _{th} + 20 mA
Peak Wavelength	λ _p	nm	1260	1270	1280	CW, I _{th} +20mA ,
Side Mode Suppression Ratio	SMSR	dB	35			CW, I _{th} +20mA ,
Wavelength temperature coefficient	Δλ/ΔT	nm/°C		0.09		Tc=-40 to 85°C
Rise Time/ Fall Time	Tr/T _f	ps		50/50		I _{th} +20mA, 20-80%
Focal Point of Fiber Coupling	FL	mm	7.2	7.5	7.8	I _{th} +20mA

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

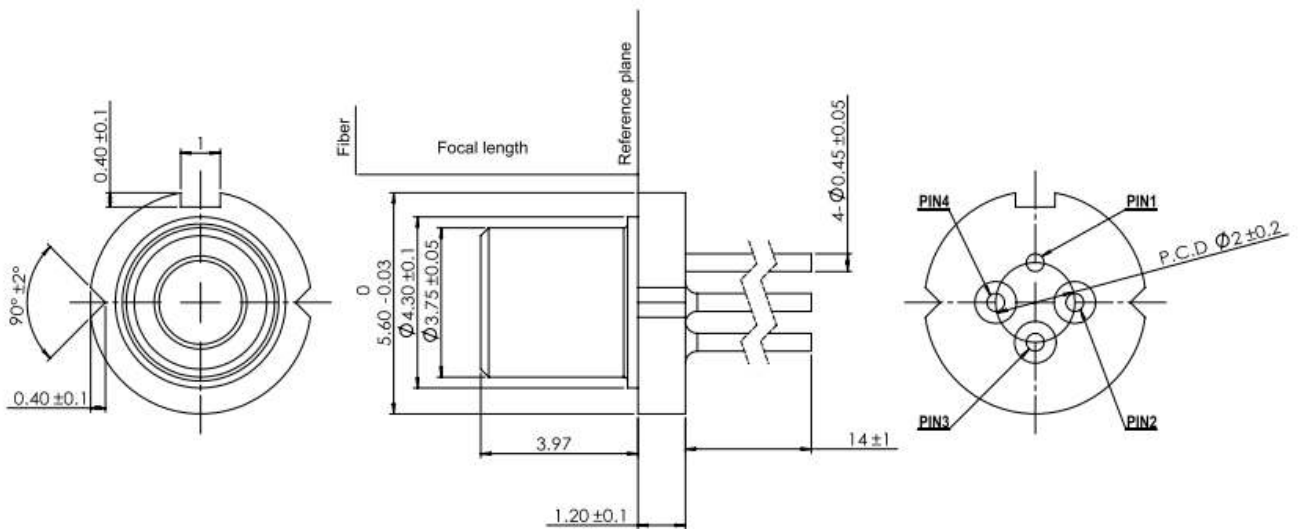
Version 1.0

Photodiode Characteristics ($T_c = 25^\circ\text{C}$, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ	Max.	Test Condition
Monitor Current	I_m	mA	0.10		1.0	CW, $I_{th} + 20$ mA
Dark Current	I_d	nA			100	$V_r = 1.7\text{V}$
PD Capacitance	C	pF		10	20	$V_r = 5\text{V} @ 1\text{MHz}$

E-TT-ED27-00 (DFB TO-can)

Dimensions: (mm)



PINOUT

L-TT-ED27-00 (FL: $7.5 \pm 0.3\text{mm}$)	
Number	Function
1	Photodiode Anode
2	Laser Diode Cathode
3	Photodiode Cathode
4	Laser Diode Anode

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