

850nm 10Gbps 5Pin VCSEL LC-TOSA with Flex-board

WG5H-902R-x Series

TYPE NAME: WG5H-902R-HH0

Product Description:

The LuxNet WG5H-902R-x TOSA (Transmitter Optical Subassembly) is designed for a high-speed, high-performance TOSA data communication and Fiber channel applications. This device is integrated with an 850nm VCSEL, TO header, and plastic lens port & Flex board. The product is designed for 10Gbps Fiber channel, 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	-10	85	
Storage Temperature	T_{stg}	°C	-40	85	
Solder Reflow 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	-	1.0	1.6	
			-	-	2.0	T=85°C
Forward Voltage	V_f	V	-	-	2.5	I _{op} =6.5mA
Differential Series Resistance	R_s	Ω	-	-	120	I _{op} =6.5mA
Peak Wavelength	λ_p	nm	840	850	860	I _{op} =6.5mA
Spectral bandwidth (RMS)	$\Delta\lambda$	nm	-	-	0.45	I _{op} =6.5mA
λ_p Temp-Coeff.	$\Delta\lambda_p$	nm/K	-	0.06	-	
Rise Time / Fall Time	τ_r/τ_f	ps	-	50	60	I _{op} = 6.5mA 20-80%
Peak Fiber Coupled Optical Power	P_{oc}	μW	600	-	800	I _{op} =6.5mA peak, 50/125 μm fiber
Slope efficiency	mA/mW	SE	0.07		0.15	I _{op} =6.5mA 50/125 μm Fiber

* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.0

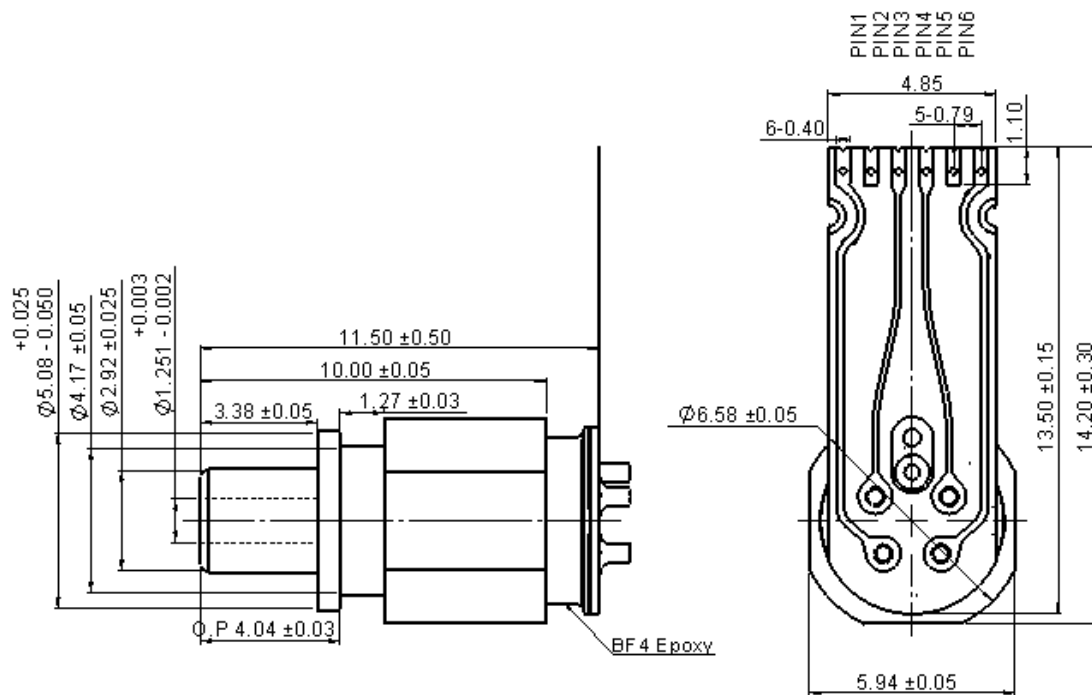
Photodiode Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Monitor Current	I_{pd}	mA	0.1	-	0.8	@6.5mA
Dark Current	I_d	nA	-	-	30	$V_r = 10@ 25^\circ\text{C}$
PD Capacitance	C	pF	-	20	-	$V_r = 3V@ 1\text{MHz}$

WG5H-902R-HH0 (LC-TOSA)

Dimensions: (mm)

All dimensions are nominal



PINOUT

WG5H-902R-HH0	
Number	Function
1	PD Anode
2	GND
3	VCSEL Cathode
4	VCSEL Anode
5	GND
6	PD Cathode

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