



1550nm 622Mb/s DFB LC TOSA

LDM5S513D-ZZ-LC

Features

- *Data rate up to 622Mb/s*
- *Low threshold current*
- *High-performance DFB LD*
- *Wide operating temperature range*
- *Built-in InGaAs, PIN photodetector monitor*
- *Coaxial TO-56 4pin LC package*

Application

- *SONET OC-12 and SDH STM-4 transmitter and Transceiver*
- *Module*
- *Other applications*

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	Ts	°C	-40	85
Relative Humidity	RH	%	-	85
Laser Diode Reverse Voltage	VRL	V	-	2
Laser Diode Forward Current	IFL	mA	-	100
Monitor Diode Reverse Voltage	VRD	V	-	15
Monitor Diode Forward Current	IFD	mA	-	2
Lead Solder Temperature	-	°C	-	260
Lead Soldering Time	-	s	-	10

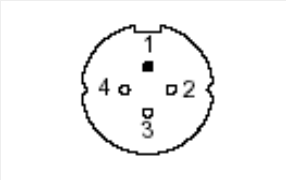
Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	Tc	°C	-40	25	+85
Operating Voltage	VOP		-	1.2	1.5

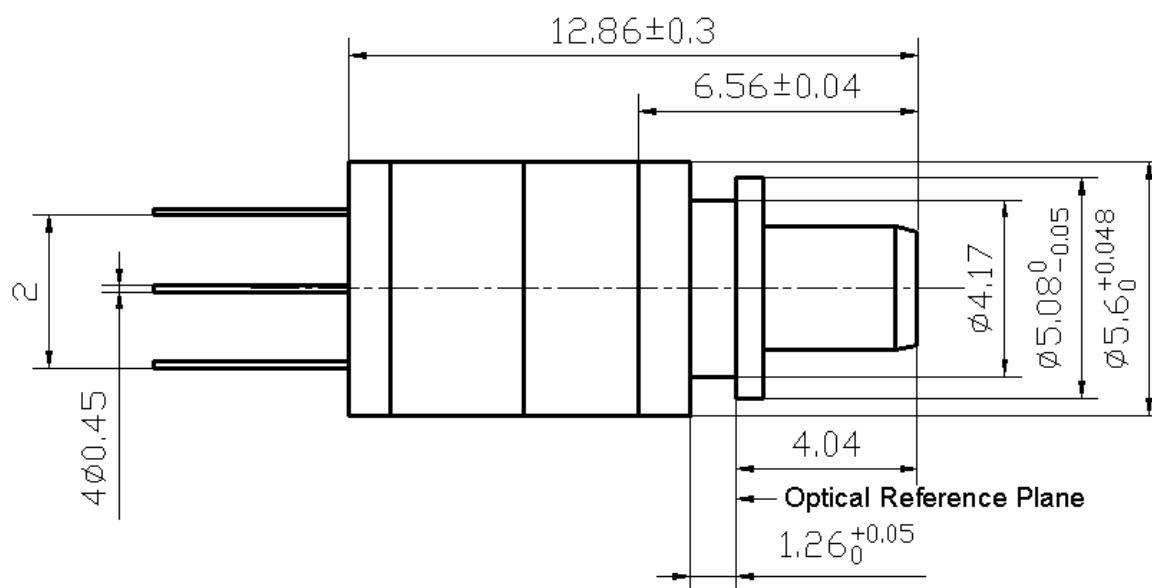
Specifications (T=25°C, BOL, unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Threshold Current	Ith	mA	6	10	15	CW
			3	-	50	CW, over temperature
Rise/Fall Time	Tr/f	ns	-	-	0.15	If=Ith+20mA; 20%~80%
Series Resistance	Rs	ohm		4.8	7	If=Ith+20mA
Monitor Current	Im	μA	100	-	800	CW, VRD=5V, Po=1mW
Monitor Dark Current	Id	nA	-	-	50	CW, VRD=5V
			-	-	500	CW, VRD=5V, over temperature
Optical Characteristics						
Optical Output Power	Po	mW	-	1.0	-	CW, If = Ith+20mA
Slope Efficiency	Se	mW/mA	0.03	0.05	-	CW
Central Wavelength	λc	nm	1540	1550	1556	CW
			1510	-	1580	CW, over temperature
Spectral Width (-20dB)	Δλ	nm	-	-	1	CW, over temperature
Side-mode suppression ratio	SMSR	dB	30	-	-	CW, over temperature
Tracking Error	ΔPf	dB	-1.5	-	+1.5	CW, over temperature Im=const@Pf(Ith+20mA)
Monitor PD Capacitance	C	pF	0.2	0.4	-	VRD=5V, f=1MHz
Connector Repeatability	-	dB	-1.0	-	1.0	

Pin Description

Pin	Description	Bottom view
1	CASE	
2	LD (N)	
3	Detector (P)	
4	LD (P) / Detector (N)	

Package outline (Unit: mm)



Ordering Information

Part No.	Specification					
	Package	Datarate	Laser	Optical Power	Temp	Others
LDM5S513D-ZZ-LC	LC TOSA	622M	1550nm DFB	1mW	-40~85°C	Common Anode

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