

1310nm 1.25 Gb/s FP LC TOSA (Preliminary)

LDM3S508-006

Features

- *Data rate up to 1.25Gbit/s*
- *High performance FP LD*
- *Built-in InGaAs monitor photodiode*
- *(4-PIN) Coaxial LC package*
- *Industry-standard TO-56 packaged*

Applications

- *SDH/SONET Transmission system up to 1.25Gbps*
- *Gigabit Ethernet*
- *1Gbps fiber channel*
- *Other applications*

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	T_s	°C	-40	85
Relative Humidity	RH	%	-	85
Laser Diode Reverse Voltage	V_{RL}	V	-	2
Laser Diode Forward Current	I_{FL}	mA	-	150
Monitor Diode Reverse Voltage	V_{RD}	V	-	20
Monitor Diode Forward Current	I_{FD}	mA	-	10
Lead Solder Temperature	-	°C	-	350
Lead Soldering Time	-	s	-	3

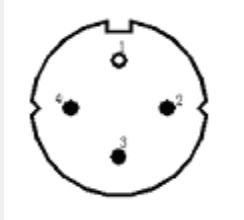
Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	T_c	°C	-40	25	85
Operating Voltage	V_{op}	V	-	1.2	1.5

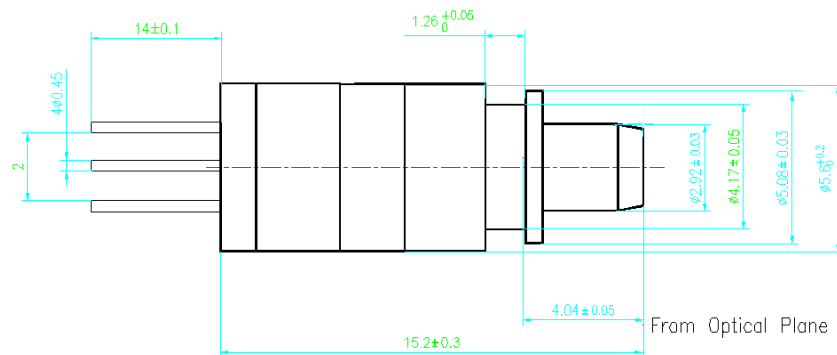
Specifications *($T=25\text{ }^\circ\text{C}$, unless otherwise noted)*

Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Threshold Current	I_{th}	V	-	10	14	CW
			-	-	28	CW, over temperature
Rise/Fall Time	$T_{r/f}$	ns	-	0.15	0.3	$I_b = I_{th}$; 10%~90%
Monitor Current	I_m	μA	200	-	1000	CW, $V_{RD}=5V$
Monitor Dark Current	I_d	nA	-	0.1	10	CW, $V_{RD}=5V$
			-	-	500	CW, $V_{RD}=5V$, over temperature
Optical Characteristics						
Optical Output Power	P_o	mW	0.5	0.8	1.0	CW, $I_f = I_{th} + 20mA$
Slope Efficiency	Se	mW/mA	0.02	-	0.05	CW
Central Wavelength	λ_c	nm	1295	1310	1330	CW
			1274	-	1356	CW, over temperature
Spectral Width	$\Delta\lambda$	nm	-	-	2.5	CW, RMS
Tracking Error	ΔP_f	dB	-1.5	-	+1.5	CW, over temperature $I_m = \text{const}@P_f(I_{th} + 20mA)$
Monitor PD Capacitance	C	pF	-	6	20	$V_{RD}=5V$, $f=1MHz$
Connector Repeatability	-	dB	-0.5	-	+0.5	Same plug orientation, same fiber, 10 times plug, CW

Pin Descriptions

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
LDM3S508-006	LC TOSA	1.25G	1310nm FP	0.5~1mW	-40~85°C	Common Anode ; Case Floating

*: The product marked with * is not available at present.

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