



CWDM Coaxial DFB-LD TOSA

LDM5S515-SC Series

Features

- *Operating wavelength range: 1470~1610nm*
- *SDH/SONET Transmission system up to 622Mb/s*
- *High-stability DFB laser chip*
- *Built-in InGaAs monitor photodiode*
- *4pin Coaxial SC package*
- *Industry-standard TO-56 packaged*

Application

- *SDH STM-1 Transmitter and Transceiver Module*
- *Other applications*

Absolute maximum ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	Ts	°C	-40	85
LD Forward Current	IfLD	mA	-	150
LD Reverse Voltage	VrLD	V	-	2
PD Forward Current	IfPD	mA	-	2
PD Reverse Voltage	VrPD	V	-	20
Soldering Temperature (<10sec)	Stemp	°C	-	260
Relative Humidity	RH	%	0	85

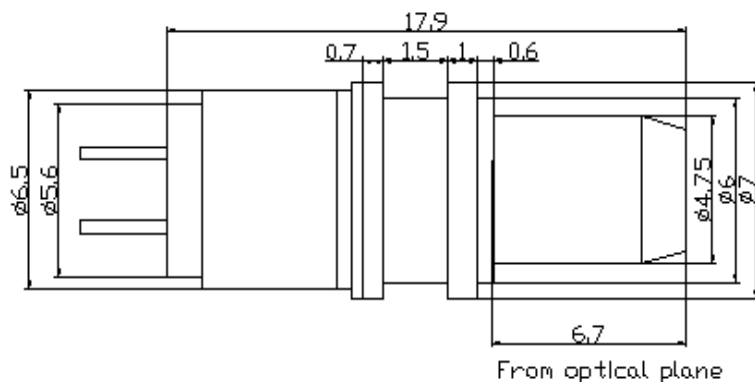
Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	Tc	°C	-5	25	85
Power Supply Voltage	Vcc		-	1.2	2.0

Specifications (Tc=25 °C, unless otherwise noted)

Parameter	Symbol	Unit	Min	Type	Max	Condition
Electrical Characteristics						
Threshold Current	Ith	mA	-	10	30	CW
Operating Current	Iop	mA	-	30	60	CW, Ith+20mA
Rise and Fall Time	Tr/f	ns	-	0.2	0.4	Ib=Ith, 10%~90%
Monitor PD Current	Im	mA	0.1	0.2	-	CW, VrPD=5V
Monitor PD Dark Current	Id	nA	-	-	500	CW, VrPD=5V
Photodiode Capacitance	C	pF	-	-	20	f=1MHz, VrPD=5V
Optical Characteristics						
Optical Output Power	Po	mW	0.63	1.2	2.5	CW, Ith+20mA
Slope Efficiency	η	W/A	0.045	0.08		
Optical Wavelength	λ_c	nm	λ_c-3	λ_c	λ_c+3	CW
Variation in Center Wavelength	$\Delta\lambda_c$	nm	-7.5	-	7.5	Over temperature range
Side Mode Suppression Ratio	SMSR	dB	30	40	-	CW
Tracking Error	Er	dB	-1.5	-	+1.5	CW, Over temperature Im=const@Pf(Ith+20mA)
Connector Repeatability	-	dB	-1	-	1	

Package Outline



NOTE: All dimension are in mm.

Pin Description

Pin	Description
1	LD anode (case)
2	LD cathode
3	PD cathode
4	PD anode



Ordering Information

Part No.	Specification					
	Package	Datarate	Laser	OpticalPower	Operating Tempreture	Others
LDM5S515-SC-1	SC TOSA	155 M/ 622M	1470nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-2	SC TOSA	155 M/ 622M	1490nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-3	SC TOSA	155 M/ 622M	1510nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-4	SC TOSA	155 M/ 622M	1530nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-5	SC TOSA	155 M/ 622M	1550nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-6	SC TOSA	155 M/ 622M	1570nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-7	SC TOSA	155 M/ 622M	1590nm DFB	1.2mW	-5 °C~85 °C	CWDM
LDM5S515-SC-8	SC TOSA	155 M/ 622M	1610nm DFB	1.2mW	-5 °C~85 °C	CWDM

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