CWDM (1270~1610nm) TOSA Laser Diodes

Features

- λc of CWDM wavelength+/-2nm
- Single-stage Isolator
- High output power(≥2mW)
- TOSA package types.

Applications

- Telecommunication transceivers
- Datacom transceivers
- Fiberoptic sensors

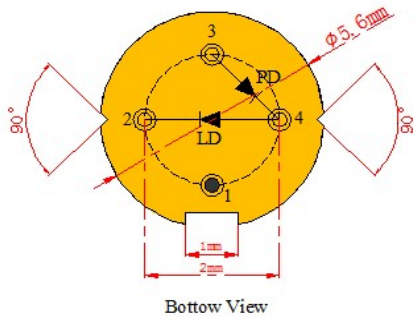
TOSA lasers are 1.271μm~1.611μm Multiple Quantum Well (MQW) structured distributed-feedback (DFB) laser modules. These las diodes are built in a TO56 package with monitor PD, Isolator for fiberoptic communication systems. These modules are ideally suita for 2.5Gbps transmission applications.

The products are Telcordia GR-468 qualified, and incompliance with RoHS Directives.

Specifications

Parameters	Unit	Values	Symbol	Test Conditions
Center Wavelength	nm	See Center Wavelength Table	λc	15 ~ 35°C, CW If=Ith+20mA
Peak Optical Output Power	mW	≥2	Po	CW If=Ith+20mA
Threshold Current	mA	≤15	I_{TH}	TL=25°C
Operating Current	mA	≤35	I_{op}	CW If=Ith+20mA
Operating Voltage	V	≤1.5	Vf	CW If=Ith+20mA
Monitor PD Current	mA	0.1~1.0	I_{rmo}	If=Ith+20mA, VRPD=5V
Monitor PD Dark Current	μA	≤0.1	I_D	I_F=0mA, V_{RPD}=5V
Modulation Bandwidth	GHz	Typ. 2.5	fc	CW, P_O=2mW
Sidemode Suppression Ratio	dB	≥35	SMSR	CW, P_O=2mW
Optical Isolation	dB	≥30		$T_{op.\ case}$=25°C
Tracking Error	dB	-1~1	TE	CW, P_O=2mW
Wavelength Temperature Coefficient	nm/°C	0.09(Typ.)	Δλ/ΔT	
Spectral Linewidth(-20dB)	nm	≤1	△λ	CW, P_O=2mW
Laser Reverse Voltage	V	≤2	V_{LR}	
PD Forward Current	mA	≤2	I_{FPD}	
PD Reverse Voltage	V	≤20	V_{RPD}	
Laser Soldering (Temp./Time)	°C/sec	≤260/10		
Operating Temperature	°C	-10 ~ +85	T_{op}	
Storage Temperature	°C	-40 ~ +85	T_s	

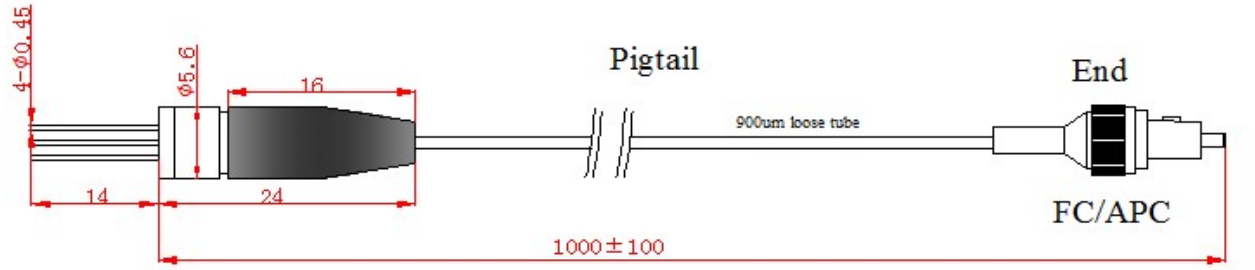
Schematic Configuration and PIN Definition:



Bottow View

Pin No.	Pin Assignments
1	Case Ground
2	LD Cathode
3	PD Anode
4	LD Anode/PD Cathode

Package Dimensions (mm)



Center Wavelength Table

No.	Center Wavelength(nm)		
	Min.	Typical	Max.
1	1268	**1270**	1272
2	1288	**1290**	1292
3	1308	**1310**	1312
4	1328	**1330**	1332
5	1348	**1350**	1352
6	1368	**1370**	1372
7	1388	**1390**	1392
8	1408	**1410**	1412
9	1428	**1430**	1432
10	1448	**1450**	1452
11	1468	**1470**	1472
12	1488	**1490**	1492
13	1508	**1510**	1512
14	1528	**1530**	1532
15	1548	**1550**	1552
16	1568	**1570**	1572
17	1588	**1590**	1592
18	1608	**1610**	1612

Ordering Information

TOSALD- ①①①①-②-③-④④④-⑤-⑥-⑦⑦⑦-⑧-⑨-⑩⑩

①	Wavelength	1270; 1290; …; 1610;
②	Optical Power	1=1mW; 2=2mW; XX=Customization;
③	LD Type	F=FP; D=DFB; S=SLED;
④	Data	2.5=2.5Gb/s; 10=10Gb/s;
⑤	Package Type	1=Receptacle/without Isolator; 2=Receptacle/with Isolator; 3=Pigtail/without Isolator; 4=Pigtail/with Isola
⑥	Pin Out	A=Type A; B=Type B; C=Type C; D=Type D;
⑦	Pigtail Type	250=250μm Bare Fiber; 900=900μm Loose Tube;
⑧	Fiber Type	1=SMF-28e;
⑨	Fiber Length	1=1m;
⑩	Connector	NE=None; FA=FC/APC; FC=FC/UPC; SA=SC/APC; SC=SC/UPC; LC=LC/UPC; XX=Others;