DFB 5mW CWDM TO56 Laser Diodes

Features

- λ_c of CWDM+/-5nm
- High output power(≥5mW)
- TO56 standard package with flat window

Applications

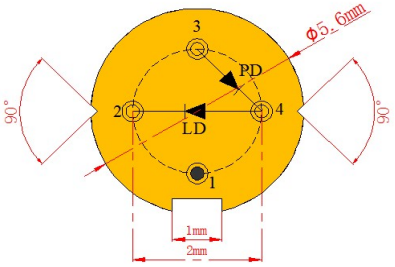
- Telecommunication transceivers
- Datacom transceivers
- Fiberoptic sensors

The TO56 LD laser diodes are uncooled multi-quantum-well DFB (Distributed Feedback) laser diodes for 2.5Gbps transmission. The laser diodes are packaged in a standard TO56 coaxial package with a photodiode for optical power monitor. The products are Telcordia GR-468 qualified, and in compliance with RoHS Directives.

Specifications

Parameters	Unit	Values	Symbol	Test Conditions
Center Wavelength	nm	See Center Wavelength Table	λ_c	If=Ith+20mA@25℃
Peak Optical Output Power	mW	≥5	Po	CW If=Ith+20mA
Threshold Current	mA	≤15	I_{TH}	TL=25°C
Operating Voltage	V	≤1.5	Vf	CW If=Ith+20mA
Monitor Current	mA	0.05~1.0	I_{rmo}	If=Ith+20mA, VRPD=5V
Monitor Dark Current	μA	≤0.1	I_D	I_F=0mA, V_{RPD}=5V
Modulation Bandwidth	GHz	Typ. 2.5	fc	CW, P_O=5mW
Sidemode Suppression Ratio	dB	≥35	SMSR	CW, P_O=5mW
Rise/Fall Time	ps	≤150	Tr/Tf	If=Ith+20mA,10~90%
Slope Efficiency	W/A	≥0.3	η	CW, If=Ith+20mA
Wavelength Temperature Coefficient	nm/°C	0.09(Typ.)	Δλ/ΔT	
Spectral Linewidth	MHz	≤5	LW	CW, P_O=5mW
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	-40 ~ +85	T_{op}	
Storage Temperature	°C	-40 ~ +85	T_s	

Pin Assignments:

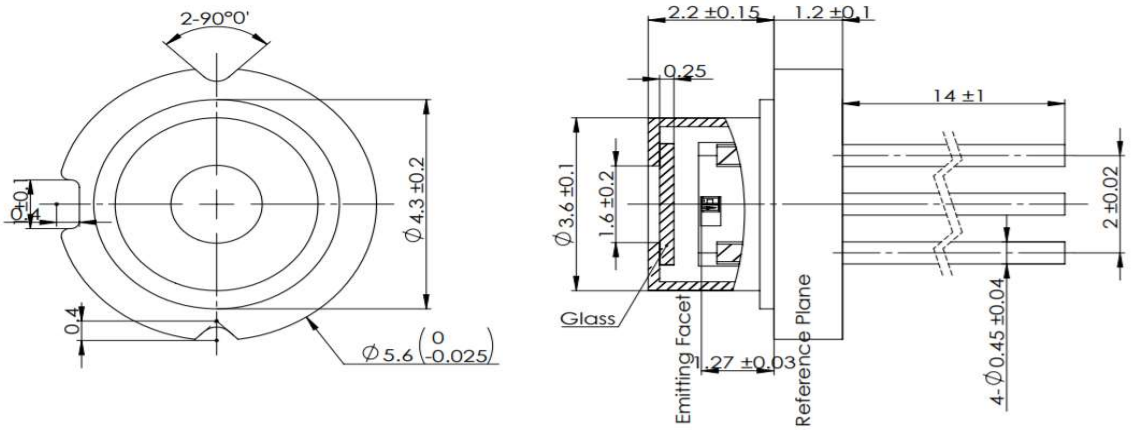


Pin No.	Pin Assignments
1	Case
2	LD Cathode
3	PD Anode
4	LD Anode/ PD Cathode

Center Wavelength Table

No.	Center Wavelength(nm)		
	Min.	Typical	Max.
1	1265	**1270**	1275
2	1285	**1290**	1295
3	1305	**1310**	1315
4	1325	**1330**	1335
5	1345	**1350**	1355
6	1365	**1370**	1375
7	1385	**1390**	1395
8	1405	**1410**	1415
9	1425	**1430**	1435
10	1445	**1450**	1455
11	1465	**1470**	1475
12	1485	**1490**	1495
13	1505	**1510**	1515
14	1525	**1530**	1535
15	1545	**1550**	1555
16	1565	**1570**	1575
17	1585	**1590**	1595
18	1605	**1610**	1615

Package Dimensions (mm)



Ordering Information

CTLD- ①①①①-②-③③③-④-⑤-⑥

①	Wavelength	1270; 1290; …; 1610;
②	LD Type	F=FP; D=DFB; S=SLED;
③	Data	2.5=2.5Gb/s; 10=10Gb/s;
④	Lens Cap	A=Aspherical Lens; B=Ball Lens; F=Flat Window;
⑤	Pin Out	A=Type A; B=Type B; C=Type C; D=Type D;
⑥	Output Power	5=5mW; 8=8mW; 10=10mW;