

Pluggable CWDM Laser Diodes

Pluggable TO56 CWDM Laser Diodes (TOSA) Series

Product Description: TOSA lasers are 1.27μm~1.61μm Multiple Quantum Well (MQW) structured distributed-feedback (DFB) laser modules. These laser diodes are built in a pluggable TO56 package with monitoring PIN-PD for fiberoptic communication systems. These modules are ideally suitable for 2.5/10Gbps transmission applications. Among products, 4 products of 1.27μm, 1.29, 1.31μm and 1.33μm are suitable for 10Gbps transmission. The products are Telcordia GR-468 qualified, and in compliance with RoHS requirement.

Applications

- Telecommunication transceivers
- Datacom transceivers
- Fiberoptic sensors

Features

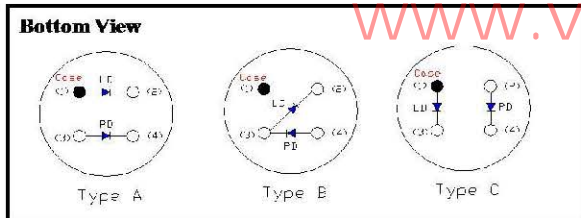
- CWDM laser diode module
- Signal rate up to 10Gb/s
- High output power (>2mW)
- LC receptacle TOSA package



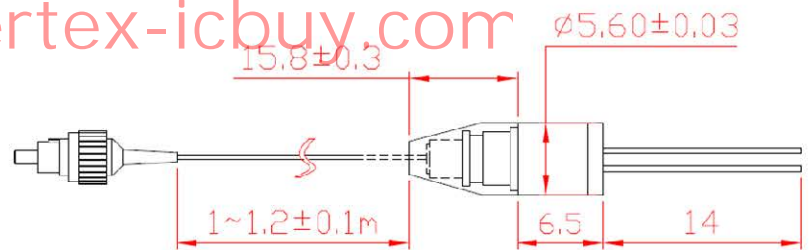
Optical and Electric Specifications

Parameters	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Peak Optical Output Power	P_p	$I_f=I_{th}+20mA$	1.8	2	-	mW
Threshold Current	I_{th}	TL=25°C	-	10	15	mA
Laser Forward Voltage	V_{If}	CW	-	1.2	2.0	V
Monitor Reverse Voltage	V_{mon}	—	3	5	10	V
Monitor Current	I_{mon}	CW, $I_f=I_{th}+20mA$, $V_{RD}=5V$	100	-	800	μA
Monitor Dark Current	I_D	$I_f=0mA$, $V_{RMON}=5V$	-	0.01	0.2	μA
Capacitance (PD)	C_t	$V_{rd}=5V$, $f=1MHz$	-	5	15	pF
Center Wavelength	λ_c	CW, $I_f=I_{th}+20mA$, $**=n$	n-3	n	n+3	nm
Side-mode Suppression Ratio	SMSR	$I_f=I_{th}+20mA$	35	-	-	dB
Optical Isolation	-	T=25°C	30	-	-	dB
Tracking error	TE	I_m hold(@Pf=1mW(25°C))	-1	-	1	dB
Wavelength/ Temperature Coefficient	$d\lambda/dT$	—	-	0.09	-	nm/°C
Spectral Width(-20dB)	$\Delta\lambda$	$P_o = 2mW$, $T_C = 0$ to $70^\circ C$	-	0.1	1	nm

PIN Definition



Mecahnical Dimensions



Pin Assignment:

Pin No.	Type A	Type B	Type C
1	LD Anode(Case)	Case	LD Anode(Case)
2	LD Cathode	LD Cathode	PD Anode
3	PD Anode	LD Anode/ PD Cathode	LD Cathode
4	PD Cathode	PD Anode	PD Cathode

Ordering Information

TOSA-	□	□□	□	□	□	□	□	□
LD Type	Wavelength	Data	Package type	Pin Out	Output Power	Pigtail length	Connector	
F:FP	27:1270	1:2.5Gb/s	1:Receptacle/without Isolator	A:Type A	1:1~2mW	0:None	0:None	
D:DFB	29:1290	2:10Gb/s	2:Receptacle/with Isolator	B:Type B	2:2~3mW	1:50cm	1:FC/UPC	
S:SLED	...		3:Pigtail /without Isolator	C:Type C	3:>3mW	2:100cm	2:FC/APC	
	61:1610		4:Pigtail/with Isolator			3:150cm	3:SC/UPC	
						4:200cm	4:SC/APC	
						C:Customize	5:LC/UPC	
							6:LC/APC	
							C:Customize	

Example of Ordering Form: TOSA-D2714B222-01

TOSA-	D	27	1	4	B	2	2	2
	DFB	1270nm	2.5Gb/s	Pigtail/with Isolator	Type B	2~3mW	100cm	FC/APC