

## 1625nm DFB Laser Diode TOSA

Model No. T62D-XYZ-WM-I-D

Read Model No.	T62D-XYZ-WM-I-D
T62D = Laser	1625nm DFB laser
X = Package	Pigtailed with 9/125um SM fiber ( <b>X=P</b> ); Receptacle ( <b>X=R</b> )
Y = Connector	None ( <b>Y=NO</b> ); FC/PC ( <b>Y=FC</b> ); SC/PC ( <b>Y=SC</b> ); ST/PC ( <b>Y=ST</b> ); LC/PC ( <b>Y=LC</b> ); FC/APC ( <b>Y=FA</b> ); SC/APC ( <b>Y=CA</b> ); ST/APC ( <b>Y=TA</b> )
Z = Output power	>0.5mW ( <b>Z=M</b> ); >1mW ( <b>Z=H</b> ); >2mW ( <b>Z=2</b> )
W = Pin configuration	A pinout ( <b>W=A</b> ); C pinout ( <b>W=C</b> )
M = Mount	For Receptacle: ( <b>M=R</b> ) For Pigtail: No flange ( <b>M=0</b> ); Horizontal mount ( <b>M=1</b> )
I = Isolator	Without isolator ( <b>I=N</b> ); With isolator ( <b>I=I</b> )
D = Data rate	1.25Gbps ( <b>D=1G</b> ); 2.5Gbps ( <b>D=2G</b> )

### Features

- 1625nm InGaAsP/InP MQW-DFB laser diode (LD)
- Data Rate: 155Mbps up to 2.5Gbps
- Uncooled operation at -40 to 85°C
- Hermetically sealed active component
- Built-in InGaAs monitor PIN photodiode (PD)
- Optional with single-stage isolator



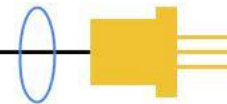
### Packaging

- Single-mode Fiber pigtailed with optional FC/ST/SC/LC connector
- FC/ST/SC receptacle package



### Applications

- ATM/SONET OC-3/OC-12/OC-24
- SDH STM-1/STM-4/STM-8
- Stable emitting source at specific wavelength



## Specifications

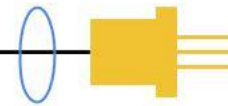
Absolute Maximum Ratings				
Parameters	Symbol	Value	Unit	Conditions
Storage temperature	Tstg	-40 to +85	°C	
Operating case temperature	Top	-40 to +85	°C	
Peak optical output power	Po	5	mW	
Forward current (LD)	I <sub>FLD</sub>	100	mA	
Reverse voltage (LD)	V <sub>RLD</sub>	2	V	
Reverse current (PD)	I <sub>RPD</sub>	5	mA	
Reverse voltage (PD)	V <sub>RPD</sub>	15	V	
Soldering temperature	Stemp	260	°C	10 seconds

Electro-Optical Characteristics (CW @ T <sub>c</sub> = 25°C unless otherwise noted)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Central wavelength	$\lambda_c$	1620	1625	1630	nm	CW, Pf
Side mode suppression ratio	SMSR	30	40	-	dB	Pf
Spectral width	$\Delta\lambda$	-	0.2	1	nm	Pf
Threshold current	I <sub>th</sub>	-	10	15	mA	CW
Fiber output power	Pf	0.5			mW	CW, I <sub>f</sub> =I <sub>th</sub> +20mA
		1.0				
		2.0				
Operating voltage	V <sub>op</sub>	-	1.1	1.5	V	Pf
Rise time / Fall time	t <sub>r</sub> /t <sub>f</sub>	-	0.1	0.2	nsec	I <sub>b</sub> = I <sub>th</sub> , 20%~80%
Monitor current	I <sub>m</sub>	100	-	1000	uA	Pf, V <sub>rp</sub> =5V
Monitor dark current	I <sub>d</sub>	-	0.1	100	nA	V <sub>rp</sub> =5V
Monitor capacitance	C	-	10	20	pF	V <sub>rp</sub> =5V, f=1MHz
Tracking error*	$\Delta Pf / Pf$	-	±1.0	±1.5	dB	APC, T <sub>c</sub> =-40~+85°C

\*I<sub>m</sub>=constant @ Pf, T<sub>c</sub>=25°C

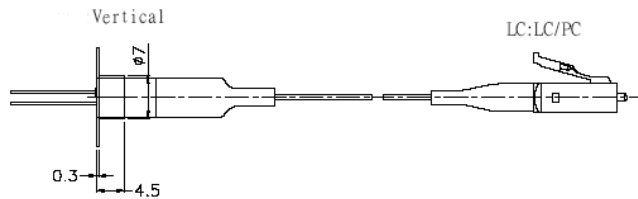
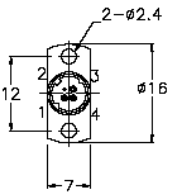
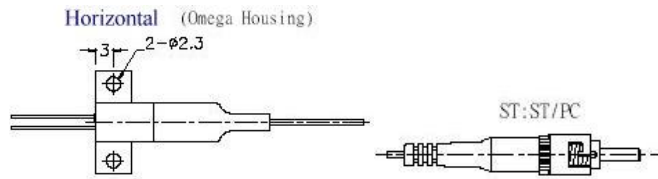
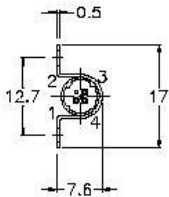
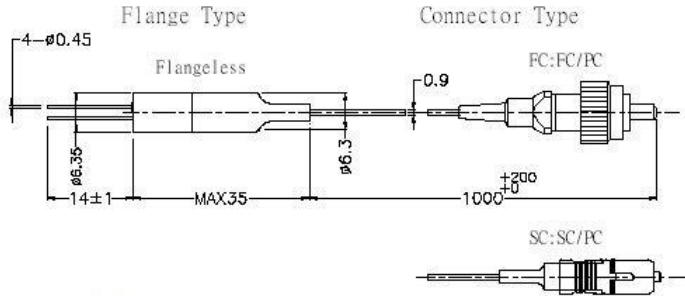
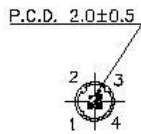
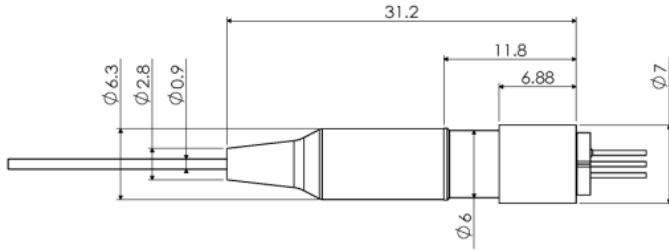
Fiber Pigtail Specifications						
Parameters	Symbol	Min.	Typ.	Max.	Unit	
Fiber type		Single Mode Fiber (Flame Retardant Hytrel Coating)				
Cladding diameter	Dcl	122	125	128	um	
Mode field diameter	Dmf	-	10	-	um	
Coating diameter	Dbc	-	0.9	1	mm	
Pigtail length*	L	0.9	1.0	1.1	m	
Bending radius	Rb	30	-	-	mm	
Connector		TBD				

\*From the ferrule-end to the bottom of TO-header.

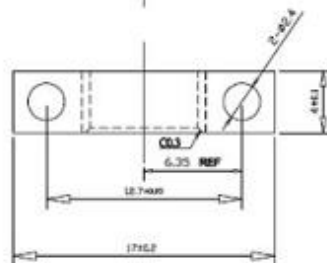
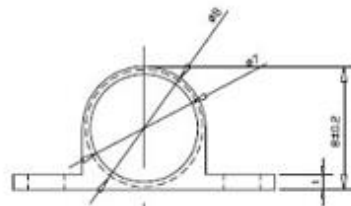
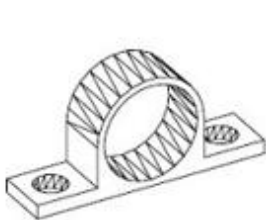


**Outline Dimensions (unit: mm)**

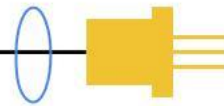
**Pigtail:**



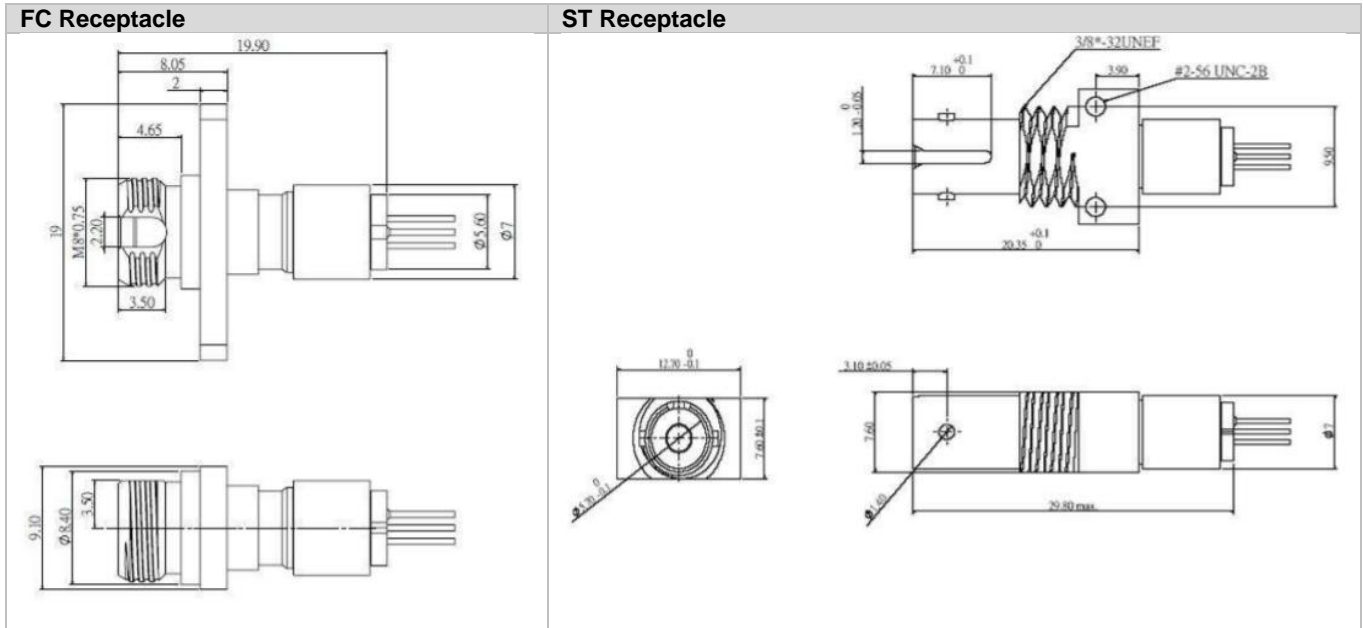
**Horizontal Mount:**



unit: mm

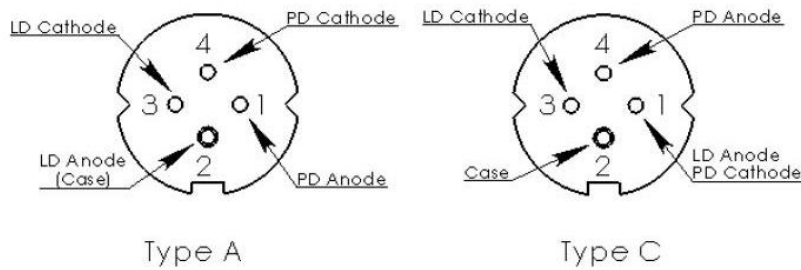


**Receptacle:**



**Pin Assignment**

Bottom View



Pin Number	Type A	Type C
1	PD Anode	LD Anode, PD Cathode
2	LD Anode (case)	Case
3	LD Cathode	LD Cathode
4	PD Cathode	PD Cathode

Note: Specifications are subject to change without notice.