



## T62D-RYZ-W-I-D 1650nm DFB Laser Diode, TOSA Receptacle

### Description

The Lasermate T62D-RYZ-W-I-D is a 1625nm wavelength, Distributed Feedback (DFB) laser diode in receptacle package with output power up to >2mW, optional isolator, and capable of reaching 2.5Gbps data rate operation. The laser is designed for use in telecommunication applications.



### 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

- 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

### Ordering Information

Read Model No.	T62D-RYZ-W-I-D
T62D = Laser	1625nm DFB laser
R = Package	Receptacle
Y = Connector	FC <b>(FC)</b> ; ST <b>(ST)</b> ; SC <b>(SC)</b>
Z = Output power	>0.5mW <b>(M)</b> ; >1mW <b>(H)</b> ; >2mW <b>(2)</b>
W = Pin configuration	A pinout <b>(A)</b> ; C pinout <b>(C)</b>
I = Isolator	Without isolator <b>(N)</b> ; With isolator <b>(I)</b>
D = Data rate	1.25Gbps <b>(1G)</b> ; 2.5Gbps <b>(2G)</b>



**Specifications**

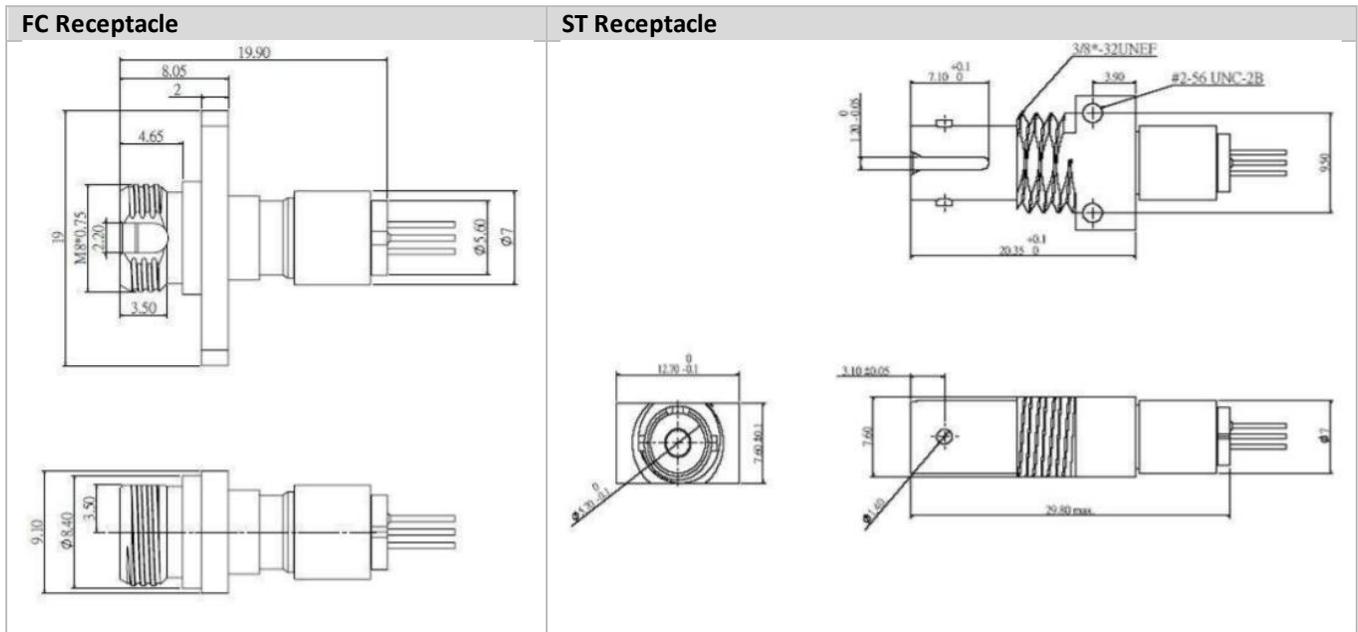
Absolute Maximum Ratings				
Parameters	Symbol	Value	Unit	Conditions
Storage temperature	Tstg	-40 to +85	°C	
Operating case temperature	Top	-40 to +85	°C	
Peak optical output power	Po	5	mW	
Forward current (LD)	I <sub>FLD</sub>	100	mA	
Reverse voltage (LD)	V <sub>RLD</sub>	2	V	
Reverse current (PD)	I <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	λ <sub>c</sub>	1620	1625	1630	nm	CW, Pf
Side mode suppression ratio	SMSR	30	40	-	dB	Pf
Spectral width	Δλ	-	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*	ΔPf/ Pf	-	±1.0	±1.5	dB	APC, T <sub>c</sub> =-40~+85°C

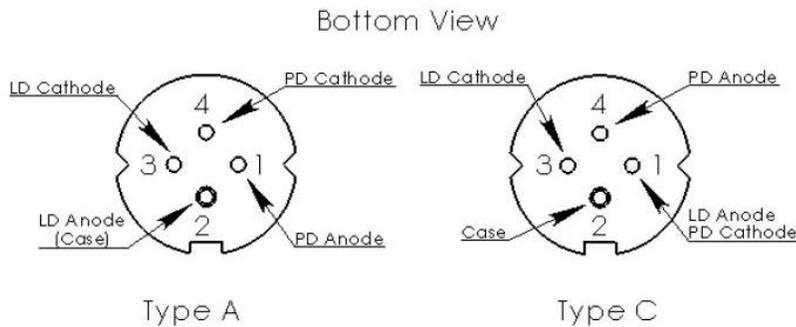
\*I<sub>m</sub>=constant @ Pf, T<sub>c</sub>=25 °C

**Outline Dimensions (unit: mm)**

**Receptacle:**



**Pin Assignment**



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



### Additional Notes

- Avoid eye or skin exposure to laser radiations.
- The device is sensitive to electro-static discharge (ESD). The device should be handled with ESD proof tools. To assemble the device on PCB, proper grounding is required to prevent ESD.
- Specifications are subject to change without notice.