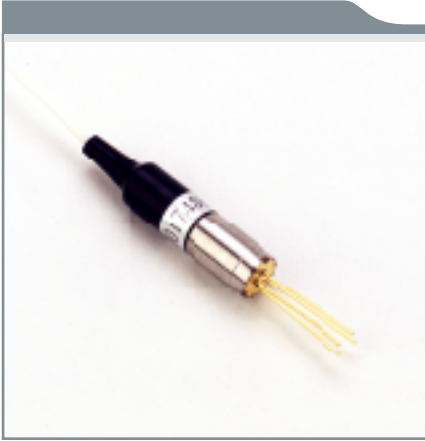


### C-15-DFB2.5-XD-SXXXX-X



#### Features

- Uncooled laser diode with MQW structure
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Bellcore TA-NWT-000983
- Single frequency operation with high SMSR

#### Application

- Designed for 2.5 Gbps high speed optical networks

#### Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Fiber Output Power	$P_f$		mW
L		0.6	
M		1.0	
H		2.0	
LD Reverse Voltage	$V_{rld}$	2	V
PD Reverse Voltage	$V_{rpd}$	10	V
PD Forward Current	$I_{fpd}$	2	mA
Operating Temperature	$T_{opr}$	0 to +70	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

#### Optical and Electrical Characteristics ( $T_c = 25^\circ\text{C}$ )

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold Current	$I_{th}$	-	10	15	mA	CW
Fiber Output Power	$P_f$				mW	CW, $I_{th}+30$ mA, kink free
L		0.2	-	0.5		
M		0.5	-	1		
H		1	-	2		
Peak Wavelength*	$\lambda$	1535	1550	1565	nm	
Side mode Suppression	$S_r$	30	35	-	dB	CW, $P_f = P_f(\text{Min})$ , 0 to +70 $^\circ\text{C}$
Forward Voltage	$V_F$	-	1.2	1.5	V	CW, $P_f = P_f(\text{Min})$
Rise, Fall Time	$t_r, t_f$	-	-	150	ps	$I_{bias}=I_{th}$ , 10 to 90%
Tracking Error	$\Delta P_f / P_f$	-	-	$\pm 1.5$	dB	APC, 0 to +70 $^\circ\text{C}$
PD Monitor Current	$I_m$	100	-	-	$\mu\text{A}$	CW, $P_f=P_f(\text{Min})$ , $V_{rpd} = 2\text{V}$
PD Dark Current	$I_{DARK}$	-	-	0.1	$\mu\text{A}$	$V_{rpd} = 5\text{V}$
PD Capacitance	$C_t$	-	6	15	pF	$V_{rpd} = 5\text{V}$ , $f = 1\text{MHz}$

(All optical data refer to a coupled 9/125  $\mu\text{m}$  SM fiber)

\*Selected wavelength is available for WDM application.

## C-15-DFB2.5-XD-SXXXX-X

### ORDERING INFORMATION

**C-15-DFB2.5-XD-SXXXX-X**

**Wavelength** \_\_\_\_\_  
 15 ..... 1550

**Package** \_\_\_\_\_  
 P ..... Pigtail  
 R ..... Receptacle

**Pin Assignment** \_\_\_\_\_  
 D ..... D Type

**Connector** \_\_\_\_\_  
 FC/ST/SC/MU/-

**Fiber Output Power** \_\_\_\_\_  
 I ..... Isolator  
 - ..... No Isolator

**Flange Type** \_\_\_\_\_  
 -/ON/K

### 2.5 Gbps DFB LD Modules-receptacle

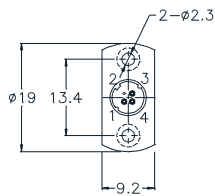
#### LD Pin Assignment

Units in mm

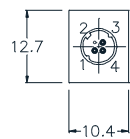
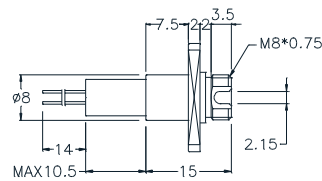


Pin 1 : Laser Anode and Monitor Diode Cathode  
 Pin 2 : Case Gnd  
 Pin 3 : Laser Cathode  
 Pin 4 : Monitor Diode Anode

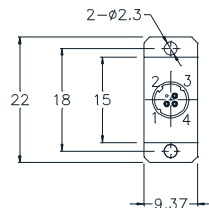
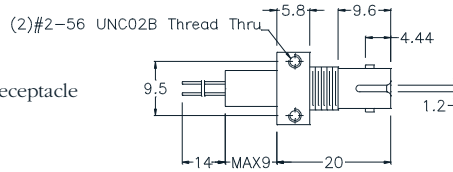
#### Connector Type



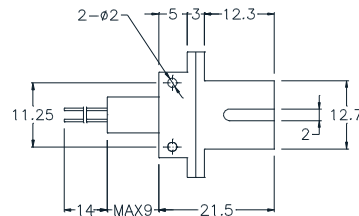
FC Receptacle



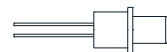
ST Receptacle



SC Receptacle



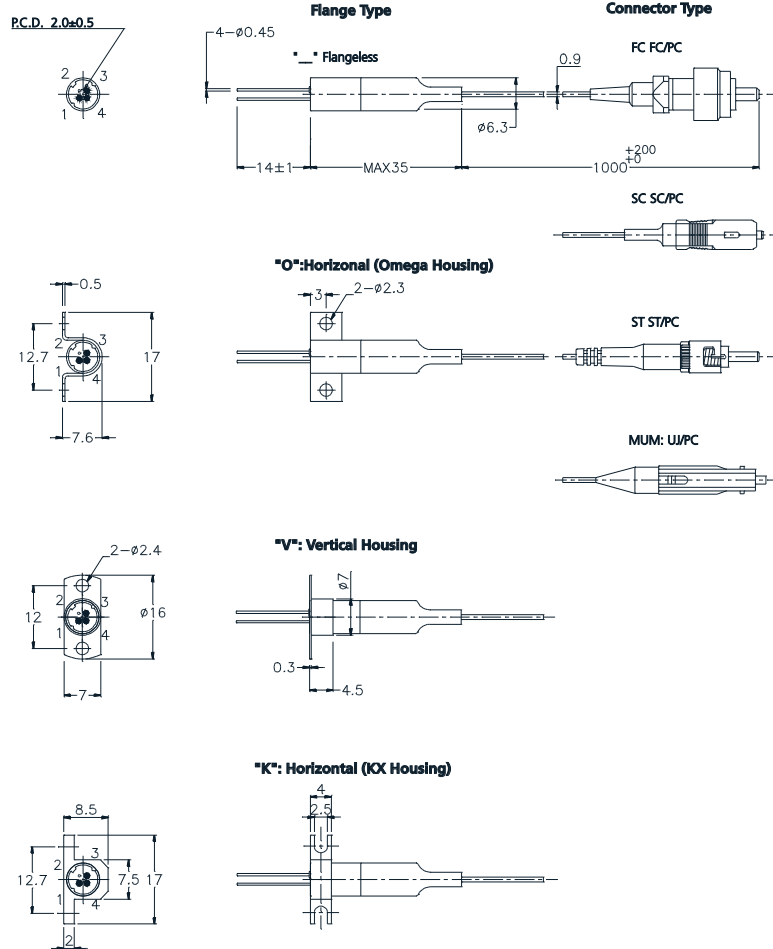
TOSA(FC,ST,SC,LC)  
Customer Specified



### 2.5 Gbps DFB LD Modules-pigtailed

#### Package Dimensions

Units in mm



#### Warnings

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

#### Legal Notice

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