

1310 nm

C-13-001-TX-SXXXX
C-13-001-RX-SXXXX
C-13-001-PX-SXXXX/XXX-X

1310 nm Laser Diode Module

Features

- Laser diode with multi-quantum-well structure
- Un-cooled operation at $-40\sim+85^{\circ}\text{C}$
- Built-in InGaAs monitor photodiode
- Hermetically sealed active component
- Complies with Bellcore TA-NWT-0009853

Packaging

- TOSA
- FC/ST/SC receptacle package with 2-hole flange
- Fiber pigtailed with optional FC/ST/SC/MU connector

Application

- Design for fiber-optics networks



Note:

1. Pin assignment can be customized.
2. Specifications subject to change without notice.

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.

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

Parameter	Symbol	Value	Unit
Fiber Output Power L/M/H/2	P_f	1(L)/1.5(M)/2.5(H)/3(2)	mW
Reverse Voltage	V_{RLD}	2	V
PD Reverse Voltage	V_{RPD}	10	V
PD Forward Current	I_{FPD}	1.0	mA
Operating Temperature	T_{opr}	$-40\sim+85$	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	$-40\sim+85$	$^{\circ}\text{C}$

(All optical data refer to a coupled 9/125 μm SM fiber)

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						
L	P_f	0.2	-	0.5	mW	CW, $I_{th}+20\text{mA}$, kink free
M		0.5	-	1		
H		1	1.6	-		
2		2	2.5	-		
Peak Wavelength	λ	1290	1310	1330	nm	CW, $P_f=P_f(\text{Min})$
Spectrum Width (RMS)	$\Delta\lambda$	-	-	3	nm	CW, $P_f=P_f(\text{Min})$
Forward Voltage	V_F	-	1.2	1.5	V	CW, $P_f=P_f(\text{Min})$
Rise/Fall Time	t_r / t_f	-	-	0.3	ns	$I_{bias}=I_{th}$, 10~90%
Tracking Error	Receptacle	$\Delta P_i/P_i$	-	± 1.0	-	APC, $-40\sim+85^{\circ}\text{C}$
	TOSA		-	± 1.0	-	
	Pigtail		-	-	± 1.0	
PD Monitor Current	I_m	100	-	-	μA	CW, $P_f=P_f(\text{Min})$, $V_{RPD}=2\text{V}$
PD Dark Current	I_{DARK}	-	-	0.1	μA	$V_{RPD}=5\text{V}$
PD Capacitance	C_t	-	6	15	pF	$V_{RPD}=5\text{V}$, $f=1\text{MHz}$

Ordering Information

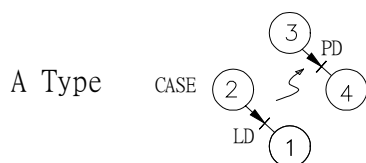
C-13-001-XX-SXXXXX/XXX-X				
Wavelength 13=1310nm	Package T=TOSA R=Receptacle P=Pigtail	Connector FC/ST/SC/MU/LC/- Fiber Output Power L/M/H/2		- = PC Fiber APC = APC Fiber Flange type (-;O;V;K)
	Pin Assignment "-" = A Type B = B Type D = D Type	"I" = Isolator "-" = No isolator		

LD Module-receptacle

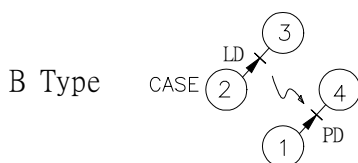
Part Number : C-13-001-RX-SXXXX

LD Pin Assignment

Units in mm



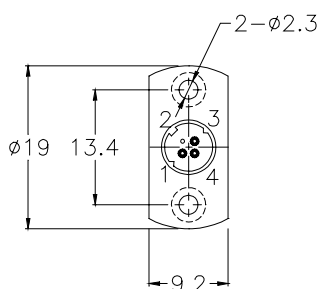
Pin 1 : Laser Cathode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Monitor Diode Anode
Pin 4 : Monitor Diode Cathode



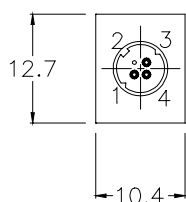
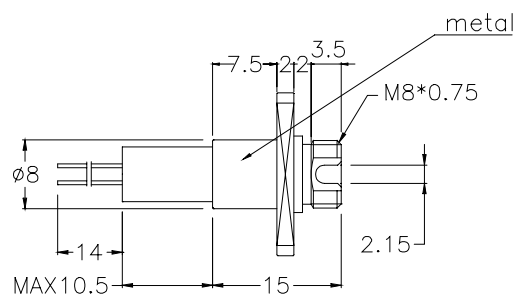
Pin 1 : Monitor Diode Anode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Cathode



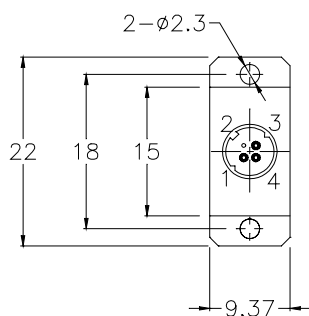
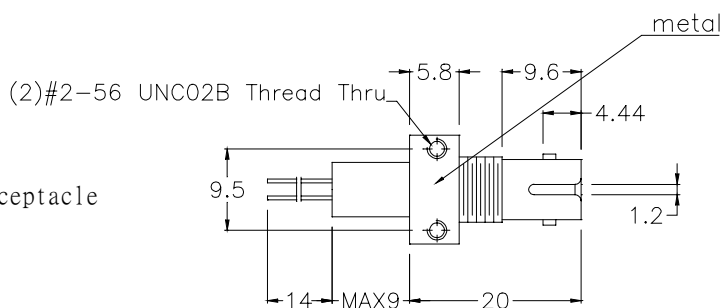
Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode



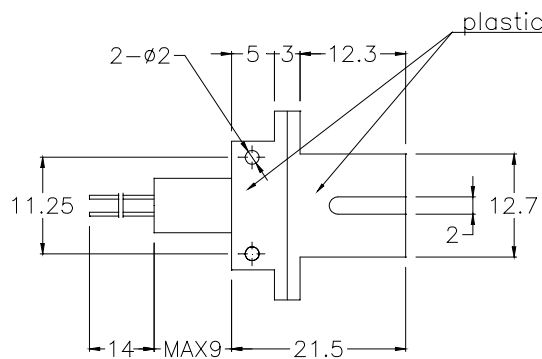
FC Receptacle



ST Receptacle



SC Receptacle

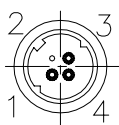


LD Module-*TOSA*

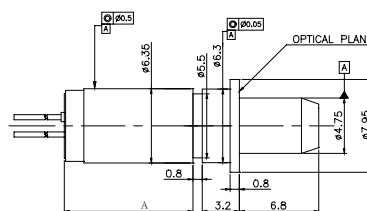
Part Number : C-13-001-TX-SXXXX

Packaging Dimension

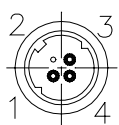
Units in mm



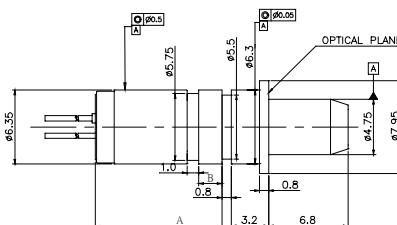
SC TOSA (L&M Power)
C-13-001-TX-SSCXX



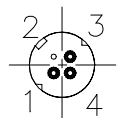
DIMENSION A (L&M POWER):7.9~8.6mm



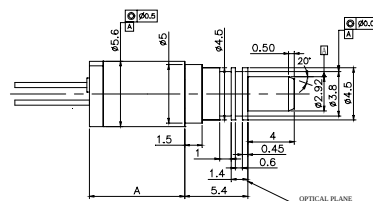
SC TOSA (H&2 Power)
C-13-001-TX-SSCXX



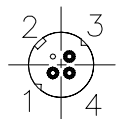
DIMENSION (H&2 POWER) A: Max 10.7mm
B: Max 2.5 mm



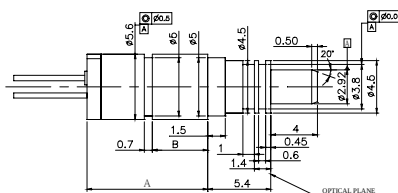
LC TOSA (L&M Power)
C-13-001-TX-SLCXX



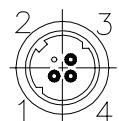
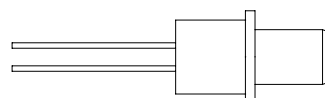
DIMENSION A (L&M POWER):7.9~8.6mm



LC TOSA (H&2 Power)
C-13-001-TX-SLCXX



DIMENSION (H&2 POWER) A: Max 10.7mm
B: Max 5.1 mm

Customer Specified
TOSA

1310 nm

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C-13-001-PX-SXXXX/XXX-X

1310 nm Laser Diode Module

LD Module-pigtailed

Part Number : C-13-001-PX-SXXXX/XXX-X

Packaging Dimension

Units in mm

