

Features

- Laser diode with Multi-quantum-well structure
- Un-cooled operation at -40 to +85 °C
- High temperature operation without active cooling
- Built-in InGaAs monitor photodiode
- Hermetically sealed active component
- Complies with Telcordia Technologies GR-468-CORE
- TOSA
- FC/ST/SC Receptacle package with 2-hole flange
- Fiber pigtailed with optional FC/ST/SC/MU/LC connector
- Design for 2.5G high speed optics networks
- RoHS Compliant available

Absolute Maximum Ratings (Tc=25 °C)

Parameter	Symbol	Rating	Unit
Fiber Output Power L/M/H/2	P _f	1(L)/1.5(M)/2.5(H)/3(2)	mW
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}	-40 ~ 85	°C
Storage Temperature	T _{stg}	-40 ~ 85	°C
Soldering Temperature (<10sec)	T _{temp}	260	°C

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

Optical and Electrical Characteristics (Tc=25 °C)

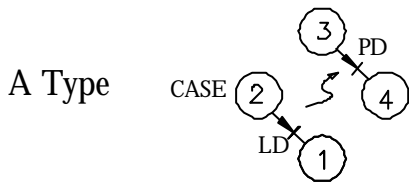
Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Threshold Current	I _{th}	-	10	15	mA	CW
Fiber Output Power	P _f	0.2 0.5 1 2	- - 1.6 2.5	0.5 1 - -	mW	CW, I _{th} +20mA, kink free
Peak Wavelength		1290	1310	1330	nm	CW, P _f = P _f (Min)
Spectrum Width (RMS)	Receptacle TOSA Pigtail	-	2 - -	5 3 3	nm	CW, P _f = P _f (Min)
Forward Voltage	V _F	-	1.2	1.5	V	CW, P _f = P _f (Min)
Rise Time / Fall Time	T _r / T _f	-	-	150	ps	I _{bias} =I _{th} , 10%~90%
Tracking Error	P _f / P _f	-1.5	-	1.5	dB	APC, -40 ~ 85 °C
PD Monitor Current	I _m	100	-	-	μ A	CW, P _f = P _f (Min), V _{RPD} = 2V

PD Dark Current	I_{dark}	-	-	0.1	μA	$V_{RPD} = 5V$
PD Capacitance	C_t	-	6	15	pF	$V_{RPD} = 5V, f = 1MHz$

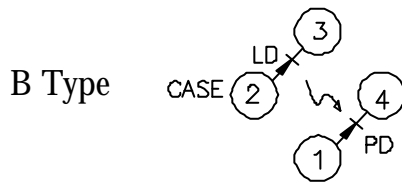
Note:

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

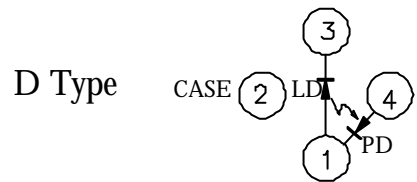
LD Pin Assignment



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



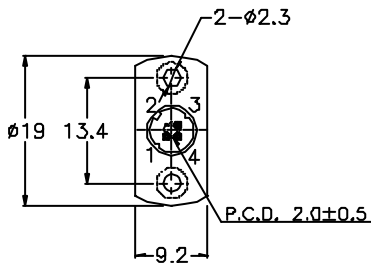
- Pin 1 : Monitor Diode Anode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Cathode



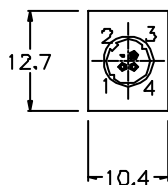
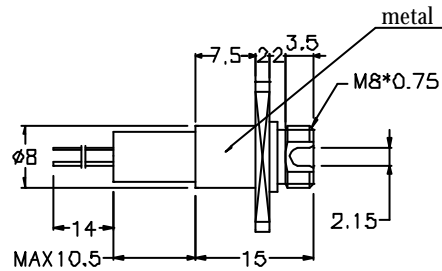
- Pin 1 : Laser Anode and Monitor Diode Cathode
- Pin 2 : Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Anode

Packaging Dimensions (Units in mm)

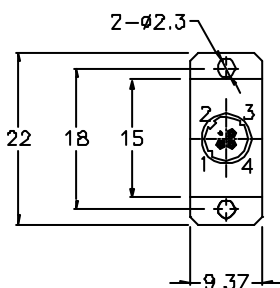
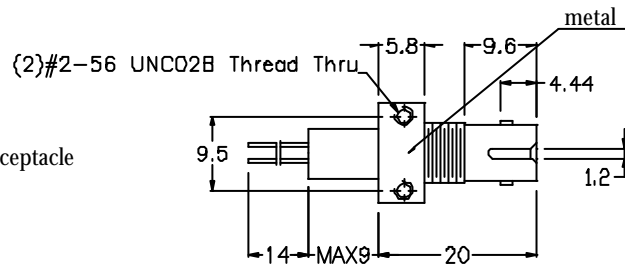
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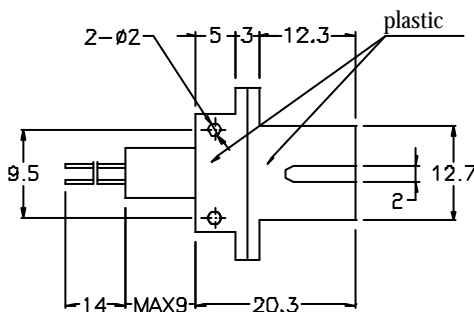
FC Receptacle



ST Receptacle

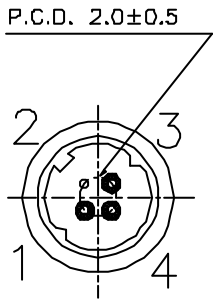


SC Receptacle

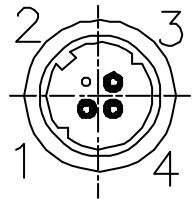
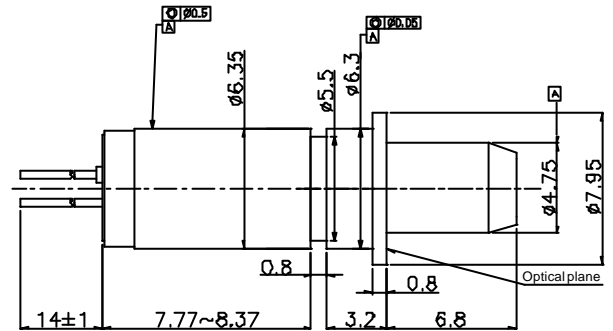


Packaging Dimensions (Units in mm)

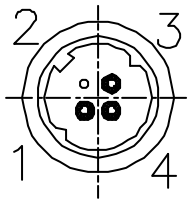
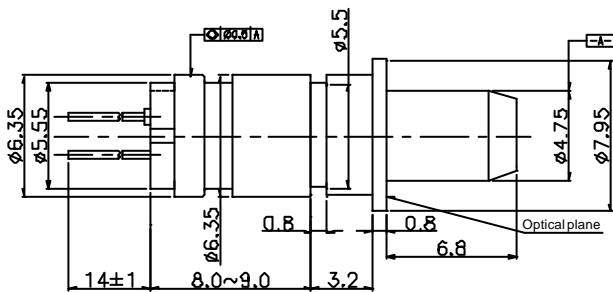
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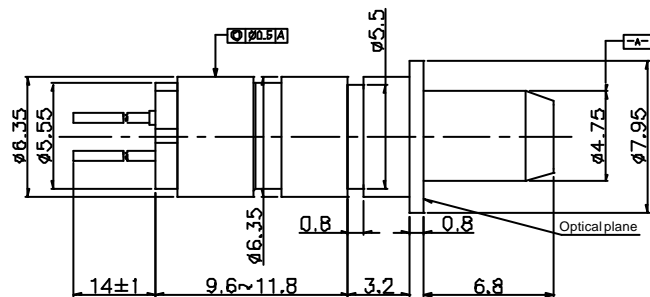
SC TOSA (L&M Power)
C-13-002-TX-SSCXX-XX



SC TOSA (L&M Power with Isolator)
C-13-002-TX-SSCXI-XX



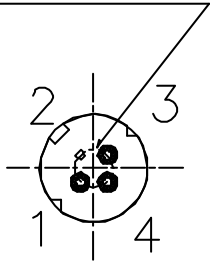
SC TOSA (H&2 Power)
C-13-002-TX-SSCXX-XX



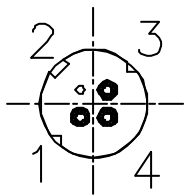
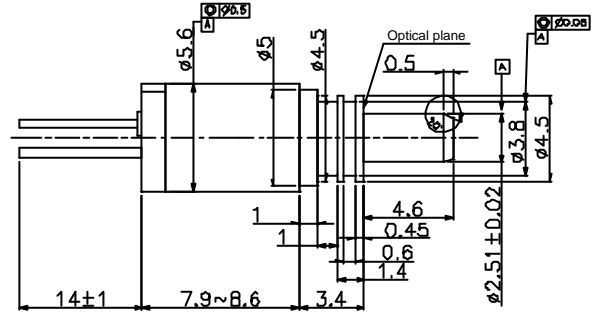
Packaging Dimensions (Units in mm)

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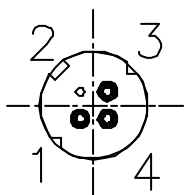
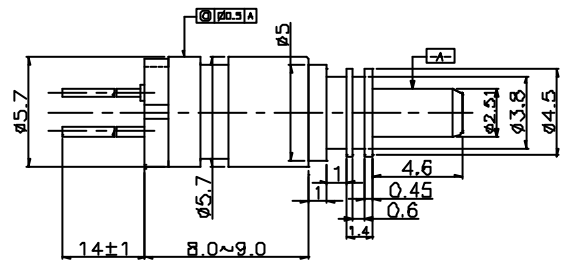
P.C.D. 2.0 ± 0.5



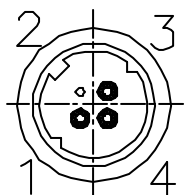
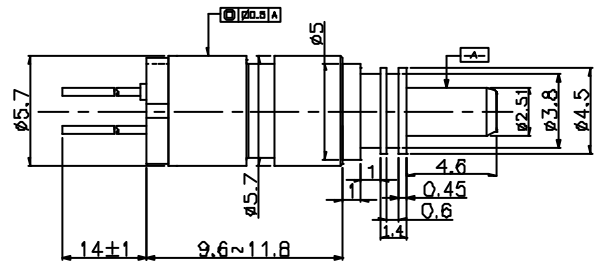
MU TOSA (L&M Power)
C-13-002-TX-SMUXX-XX



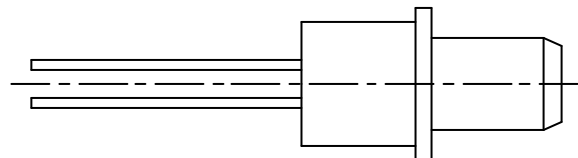
MU TOSA (L&M Power with Isolator)
C-13-002-TX-SMUXI-XX



MU TOSA (H&2 Power)
C-13-002-TX-SMUXX-XX

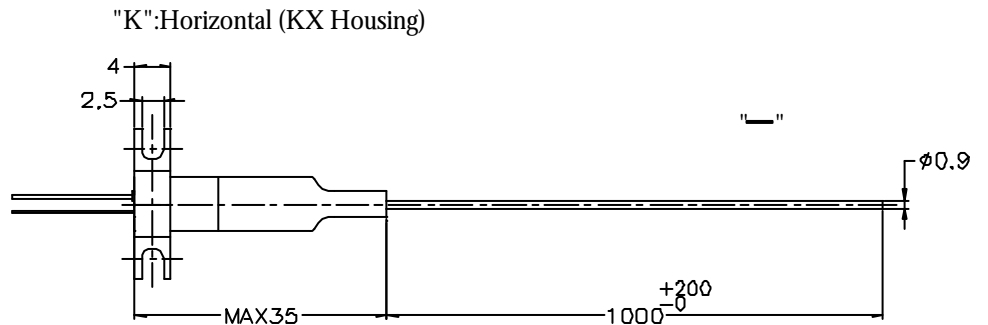
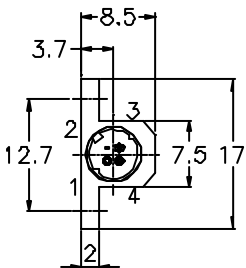
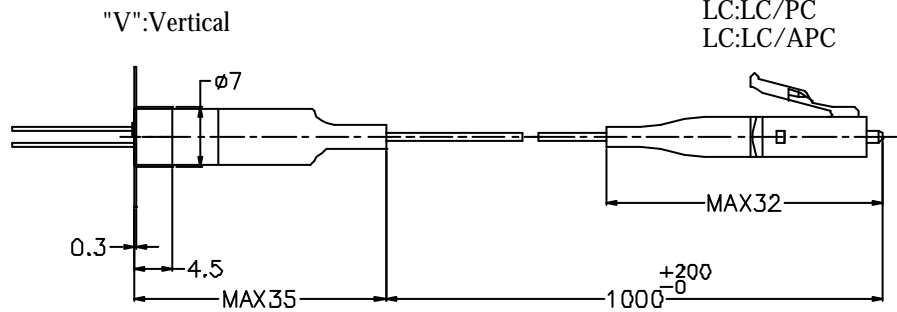
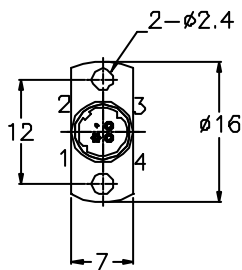
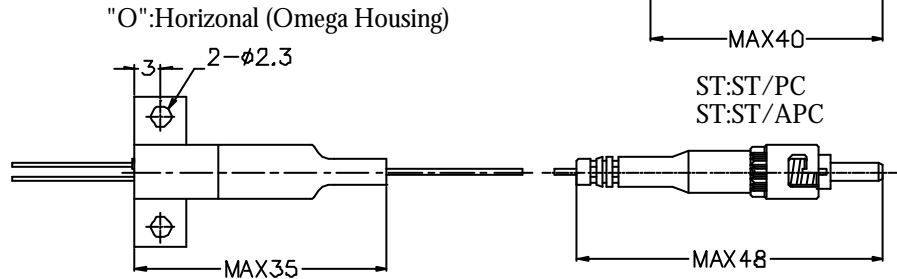
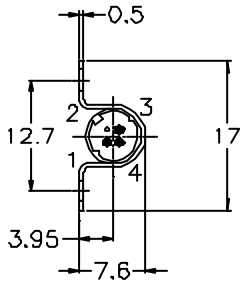
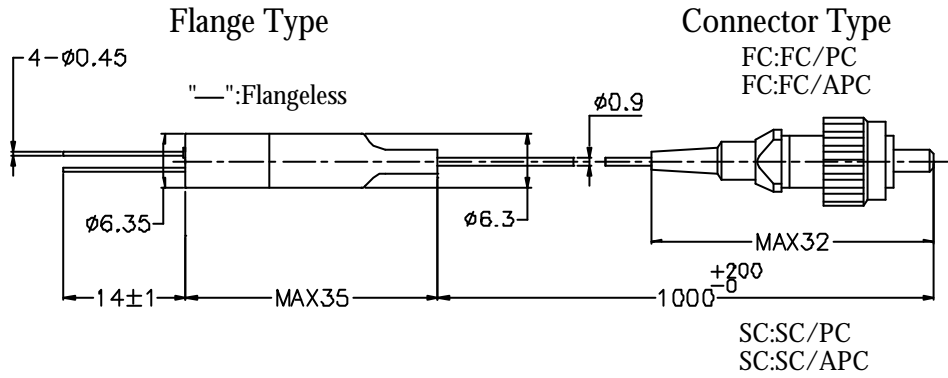
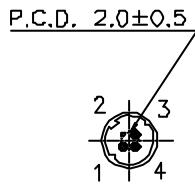


Customer Specified
TOSA



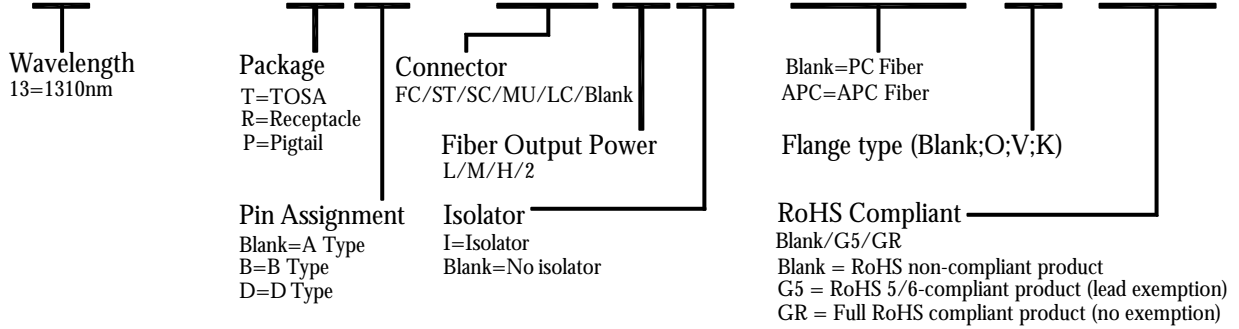
Packaging Dimensions (Units in mm)

Part Number: C-13-002-PX-SXXXX/XXX-X-XX



Ordering Information

C-13-002-XX-SXXXXX/XXX-X-XX



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.

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