



Features

- Un-cooled laser diode with multi-quantum-well structure
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Telcordia Technologies GR-468-CORE
- Single frequency operation with high SMSR
- TOSA
- FC/ST/SC receptacle package with 2-hole flange
- Fiber pigtailed with FC/ST/SC/MU/LC connector
- Design for 2.5Gbps high speed optic 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} | 0 ~ 70 | °C |
| Storage Temperature | T _{stg} | -40 ~ 85 | °C |

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

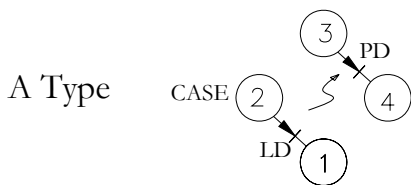
Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Notes |
|-----------------------|---------------------------------|----------------------|----------------------|--------------------|------|--|
| Threshold Current | I _{th} | - | 10 | 15 | mA | CW |
| Optical 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 | λ | 1295 | 1310 | 1325 | nm | Note 3 |
| Side mode Suppression | S _r | 30 | 35 | - | dB | CW, P _f = P _f (Min), 0 ~ 70°C |
| Forward Voltage | V _F | - | 1.2 | 1.5 | V | CW, P _f = P _f (Min) |
| Rise / Fall Time | T _r / T _f | - | - | 150 | ps | I _{bias} =I _{th} , 20~80% Lead length=1mm |
| Tracking Error | ΔP _f /P _f | -1.5 | - | 1.5 | dB | APC, 0 ~ 70°C |
| PD Monitor Current | I _m | 100 | - | - | μA | 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 |

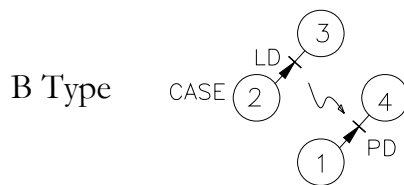
Note:

1. Pin assignment can be customized.
2. Specifications subject to change without notice.
3. Selected wavelength is available for WDM application.

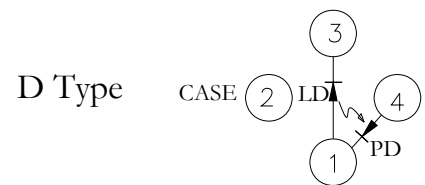
Pin Assignment



- 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

Ordering Information

C-13-DFB2.5-XX-SXXXX/XXX-X-XX

Wavelength
 13=1310 nm

Package
 T=TOSA
 R=Receptacle
 P=Pigtail

Connector
 FC/ST/SC/MU/LC/Blank

Fiber Output Power
 L/M/H/2

Blank=PC Fiber
 APC=APC Fiber

Flange type (Blank;O;V;K)

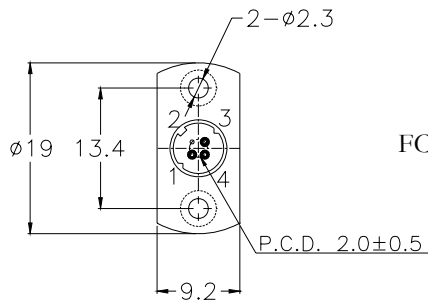
Pin Assignment
 Blank=A Type
 B=B Type
 D=D Type

I=Isolator
 Blank=No Isolator

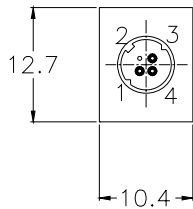
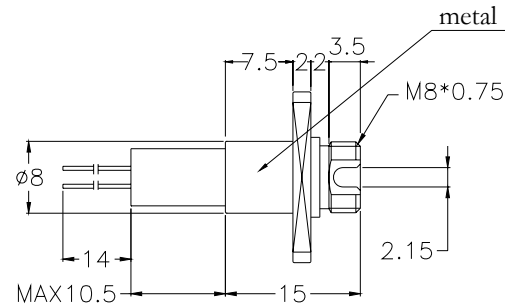
RoHS Compliant
 Blank/G5/GR
 Blank = RoHS non-compliant product
 G5 = RoHS 5/6-compliant product (lead exemption)
 GR = Full RoHS compliant product (no exemption)

Packaging Dimensions (Units in mm)

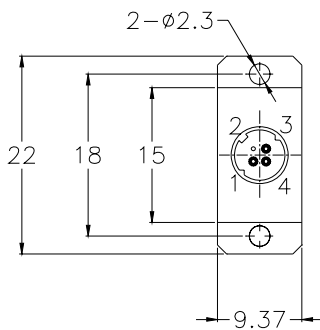
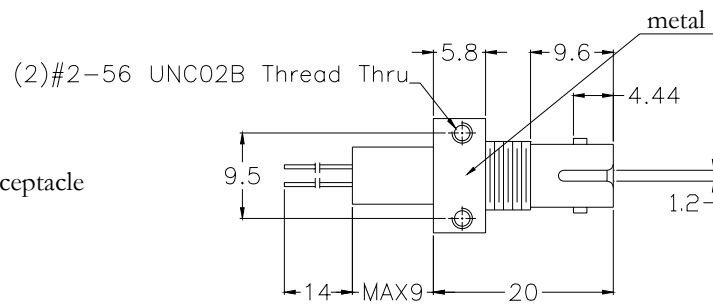
Part Number: C-13-DFB2.5-RX-SXXXX-XX



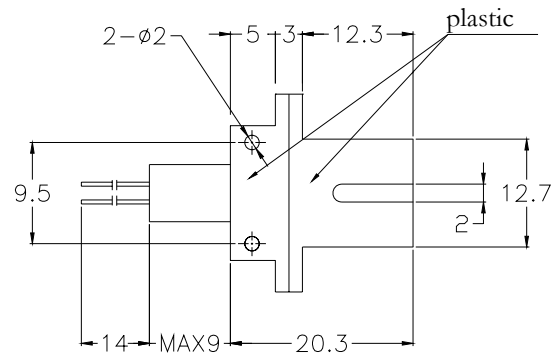
FC Receptacle



ST Receptacle

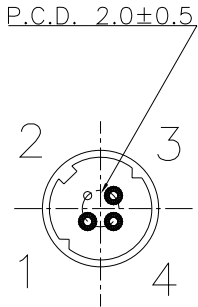


SC Receptacle

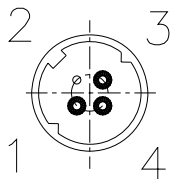
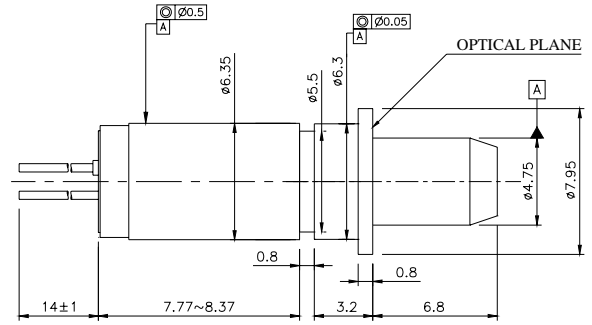


Packaging Dimensions (Units in mm)

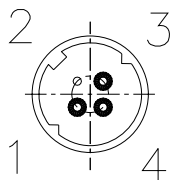
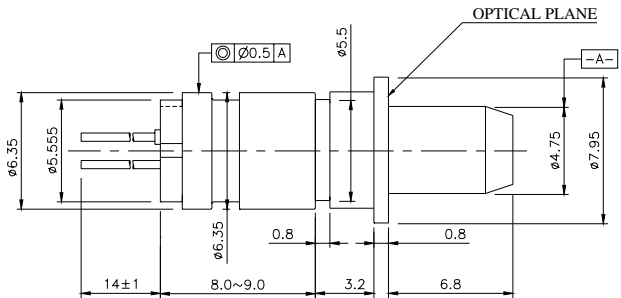
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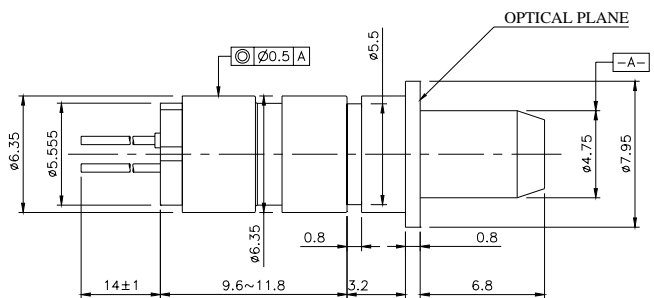
SC TOSA (L&M Power)
C-13-DFB2.5-TX-SSCXX-XX



SC TOSA (L&M Power with Isolator)
C-13-DFB2.5-TX-SSCXI-XX

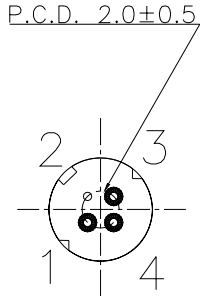


SC TOSA (H&2 Power)
C-13-DFB2.5-TX-SSCXX-XX

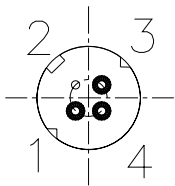
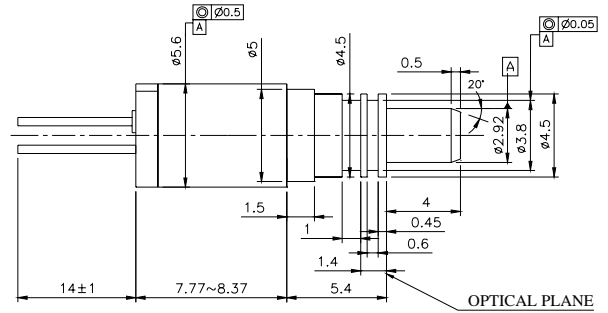


Packaging Dimensions (Units in mm)

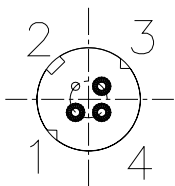
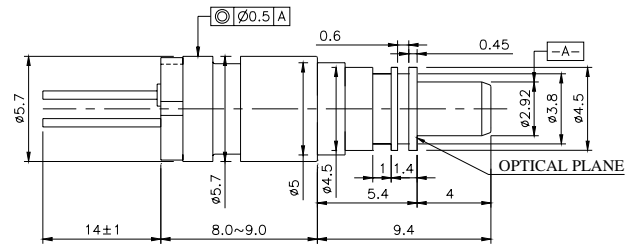
Part Number: C-13-DFB2.5-TX-SLCXX-XX



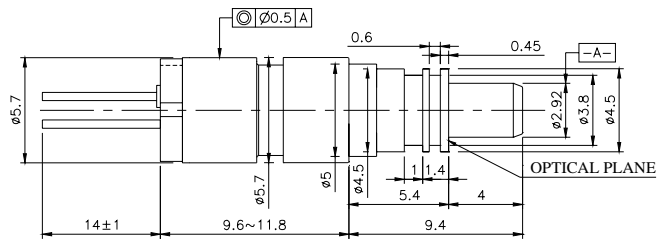
LC TOSA (L&M Power)
C-13-DFB2.5-TX-SLCX-XX



LC TOSA (L&M Power)
C-13-DFB2.5-TX-SLCXI-XX



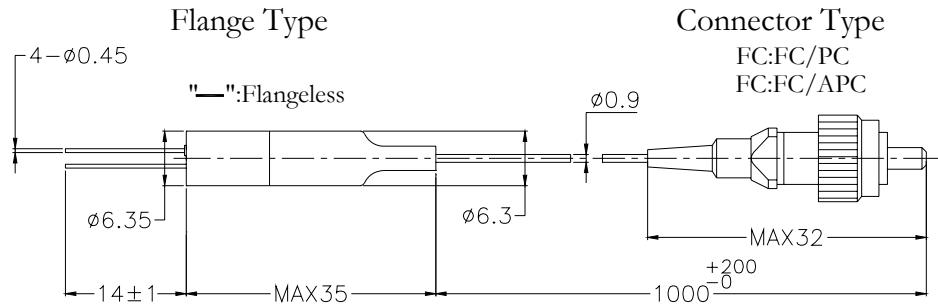
LC TOSA (H&2 Power)
C-13-DFB2.5-TX-SLCXX-XX



Packaging Dimensions (Units in mm)

Part Number: C-13-DFB2.5-PX-SXXXX/XXX-X-XX

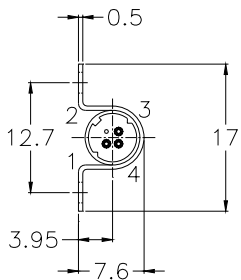
P.C.D. 2.0 ± 0.5



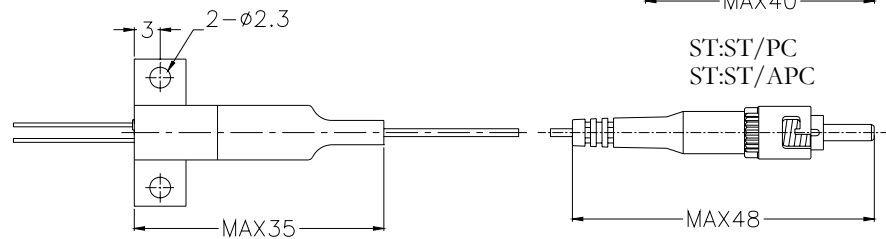
Connector Type

FC:FC/PC
 FC:FC/APC

SC:SC/PC
 SC:SC/APC

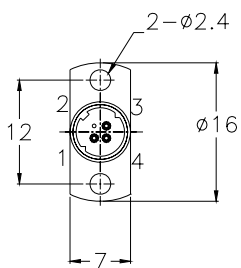
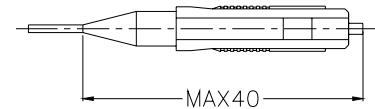


"O": Horizontal (Omega Housing)

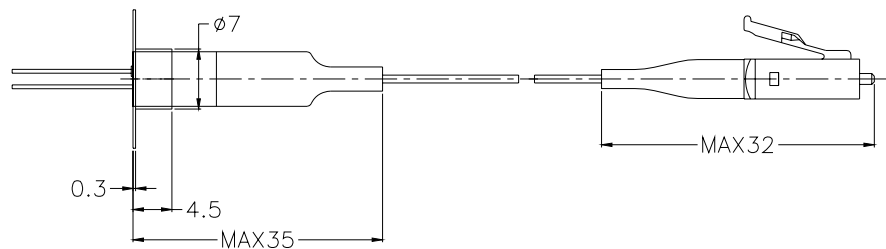


ST:ST/PC
 ST:ST/APC

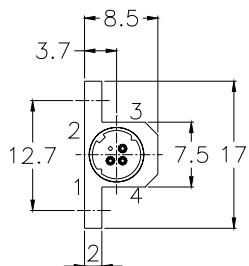
MU:MU Connector



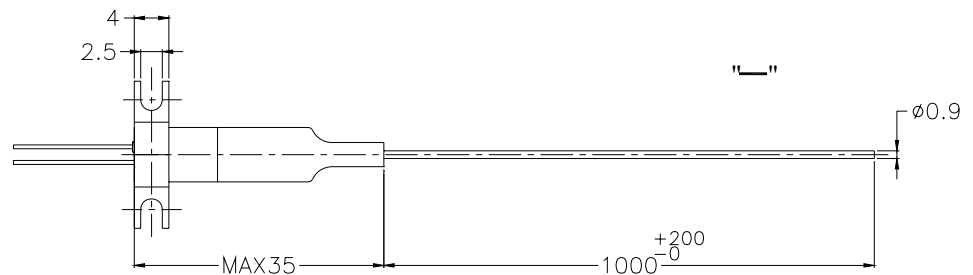
"V": Vertical



LC:LC/PC
 LC:LC/APC



"K": Horizontal (KX Housing)



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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