

## Features :

- ✓ Laser welded package
- ✓ Single fiber LC Receptacle type
- ✓ Integrated P2P compliant WDM Filter
- ✓ High output power uncooled DFB Laser Diode
- ✓ High sensitive PIN- TIA
- ✓ ROHS Compliant Products Available

## Applications :

- Telecommunication
- Data Communication
- P2P

## Standard :

- Compliant with Telcordia GR-468 reliability test criterion
- Compliant with RoHS6 standard
- Compliant with GR-326 connector qualification standard

## —The main photoelectric and environmental indicators of products :

1. Absolute Maximum Ratings ( 25°C )

| Parameter                                | Symbol          | Min. | Max.   | Unit   |
|------------------------------------------|-----------------|------|--------|--------|
| Storage Temperature                      |                 | -40  | 85     | °C     |
| Operating Case Temperature               | Top             | 0    | 70     | °C     |
| LD Reverse Voltage                       | V <sub>RL</sub> | ---  | 2      | V      |
| Photodiode Reverse Voltage (MPD)         | V <sub>RD</sub> | ---  | 15     | V      |
| Photodiode Forward Current(MPD)          | I <sub>FD</sub> | ---  | 10     | mA     |
| LD Forward Current                       | I <sub>FL</sub> | ---  | 150    | mA     |
| TIA Operating voltage                    | V <sub>CC</sub> | -0.4 | 4      | V      |
| Hand Lead Soldering (Temperature)/(Time) | ---             | ---  | 260/10 | °C/Sec |

## 2. Transmitter Optical And Electrical Characteristics ( 25°C )

| Parameter                   | Symbol          | Min. | Typ. | Max. | Unit | Note                                                                                       |
|-----------------------------|-----------------|------|------|------|------|--------------------------------------------------------------------------------------------|
| Threshold Current           | I <sub>th</sub> | ---  | ---  | 15   | mA   | CW, T <sub>c</sub> =25°C                                                                   |
|                             |                 | ---  | ---  | 45   |      | CW, T <sub>c</sub> =0~70°C,                                                                |
| Output Optical Power        | P <sub>f</sub>  | 0.18 |      | 0.4  | mW   | CW, I <sub>op</sub> = 25mA                                                                 |
| Center Wavelength           | λ <sub>p</sub>  | 1530 | 1550 | 1570 | nm   | I <sub>op</sub> =I <sub>th</sub> +20mA,<br>T <sub>c</sub> =0°C~70°C                        |
| Operating Voltage           | V <sub>f</sub>  | ---  | 1.2  | 1.5  | V    | CW, I <sub>op</sub> =I <sub>th</sub> +20mA                                                 |
| Side Mode Suppression Ratio | SMSR            | 35   | ---  | ---  | dB   | CW, P <sub>op</sub> =I <sub>th</sub> +20mA,<br>T <sub>c</sub> =0°C~70°C                    |
| Monitor Current             | I <sub>m</sub>  | 100  | ---  | 600  | uA   | I <sub>op</sub> = 25mA, T <sub>c</sub> =25C,                                               |
| Monitor Dark Current        | I <sub>d</sub>  | ---  | ---  | 100  | nA   | V <sub>rd</sub> =1.7V                                                                      |
| Tracking Error              | TE              | -1.5 | ---  | 1.5  | dB   | CW, 0°C<br>/+70°C, ,Montior<br>current hold @ I <sub>op</sub> = I <sub>th</sub><br>+ 20 mA |

### 3. Receiver Optical and Electrical Characteristics ( 25°C )

| Parameter            | Symbol    | Min. | Typ. | Max. | Unit | Condition                                                                                                         |
|----------------------|-----------|------|------|------|------|-------------------------------------------------------------------------------------------------------------------|
| Operating Wavelength | $\lambda$ | 1280 | 1310 | 1340 | nm   | Tc=0°C to 70°C                                                                                                    |
| Supply Voltage       | Vcc       | 3.0  | 3.3  | 3.6  | V    | Tc=0°C to 70°C                                                                                                    |
| TIA Supply Current   | Icc       | 18   | ---  | 35   | mA   | Vcc=3.3V                                                                                                          |
| Sensitivity          | Sen.      | ---  | ---  | -25  | dBm  | $\lambda = 1310\text{nm}$ , NRZ ,<br>1.25Gbps, PRBS=2 <sup>7</sup> -1,<br>ER=9~10dB,BER=10 <sup>-10</sup> ,<br>CW |
| Overload Power       | Pol       | -7   | ---  | ---  | dBm  | $\lambda = 1310\text{nm}$ ,PRBS=2 <sup>7</sup> -1,<br>ER=9~10dB,BER=10 <sup>-10</sup> ,<br>@1.25Gbps,             |

4、 ESD  $\pm 500\text{V}$  (HBM)

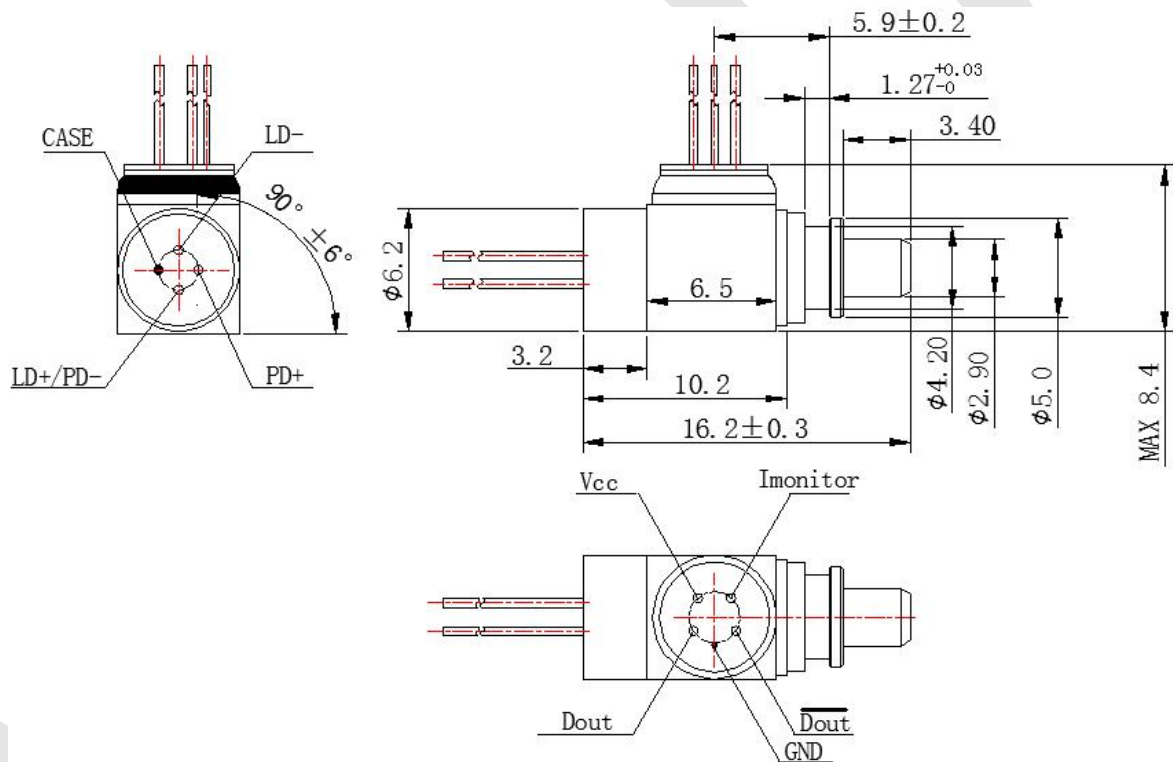
5. RX GND Pin and BOSA BASE satisfies the requirement of insulation

### 二 : The mechanical parameters

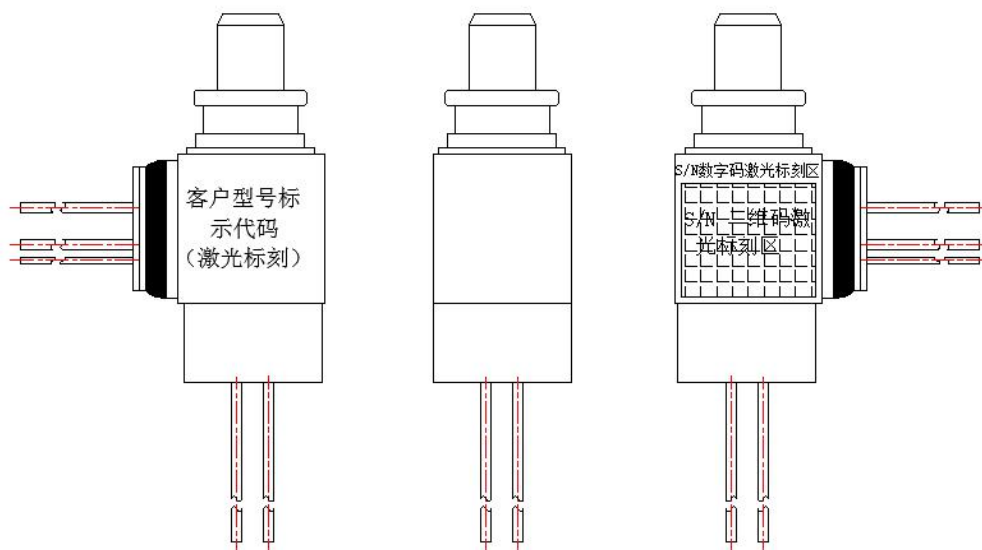
| Parameters               | Unit | Conditions                  | Min. | Max. |
|--------------------------|------|-----------------------------|------|------|
| The main mechanical size | mm   | Reference structure diagram |      |      |
| The shear strength       | N    | vertical                    | 300  | ---  |
| LD drawing force         | N    | horizontal                  | 300  | ---  |
| PD drawing force         | N    | vertical                    | 150  |      |

### 三 . Product structure drawing

Note :The product BASE adopts MIM structure 。 The laser welding is used at the TX. Adhesive is used at the RX.



#### 四 . Mark



Note : Customer type identification code is customizable,if there is no demand, it is empty.

More information :

Tel: +86-755-86674946

FAX: +86-755-86296723

Email: [sales@atoptechnology.com](mailto:sales@atoptechnology.com)

Web: [www.atoptechnology.com](http://www.atoptechnology.com)