



# 10G XG-SPON ONU BOSA-SC

## Features:

- High-stability 1270nm DFB laser
- Built-in GaInAs/InP monitor photodiode
- Low threshold
- High reliability
- High sensitive 10.3125G APD+TIA
- SC Receptacle

## Applications:

- Optical communication system

## Specifications:

### Absolute Maximum Ratings (Tc=25 , unless otherwise noted)

| Parameter               | Symbol      | Min | Max. | Unit |
|-------------------------|-------------|-----|------|------|
| LD Reverse Voltage      | $V_{r(LD)}$ | --  | 2    | V    |
| LD Forward Current      | $I_{f(LD)}$ | --  | 120  | mA   |
| PD Forward Current      | $I_{f(PD)}$ | --  | 2    | mA   |
| PD Reverse Voltage      | $V_{r(PD)}$ | --  | 20   | V    |
| Operating Temperature   | $T_{op}$    | -40 | 85   |      |
| Storage Temperature     | $T_{stg}$   | -40 | 85   |      |
| Lead Solder Temperature | --          | --  | 260  |      |
| Lead Soldering Time     | --          | --  | 10   | s    |

### Transmitter Optical& Electrical Characteristics(Tc=25 , unless otherwise noted)

| Parameter            | Symbol          | Test Condition                         | Min | Typ | Max  | Unit |
|----------------------|-----------------|--|-----|-----|------|------|
| Threshold Current    | I <sub>th</sub> | Tc=25                                  | --  | 8   | 10   | mA   |
|                      |                 | Tc=85                                  | --  | --  | 40   |      |
| Forward Voltage      | V <sub>f</sub>  | I <sub>op</sub> =I <sub>th</sub> +20mA | --  | --  | 1.7  | V    |
| Monitor Current(MPD) | I <sub>m</sub>  | I <sub>op</sub> =I <sub>th</sub> +20mA | 50  | --  | 1000 | uA   |
| Dark Current(MPD)    | I <sub>d</sub>  | V <sub>r</sub> =5V                     | --  | --  | 100  | nA   |

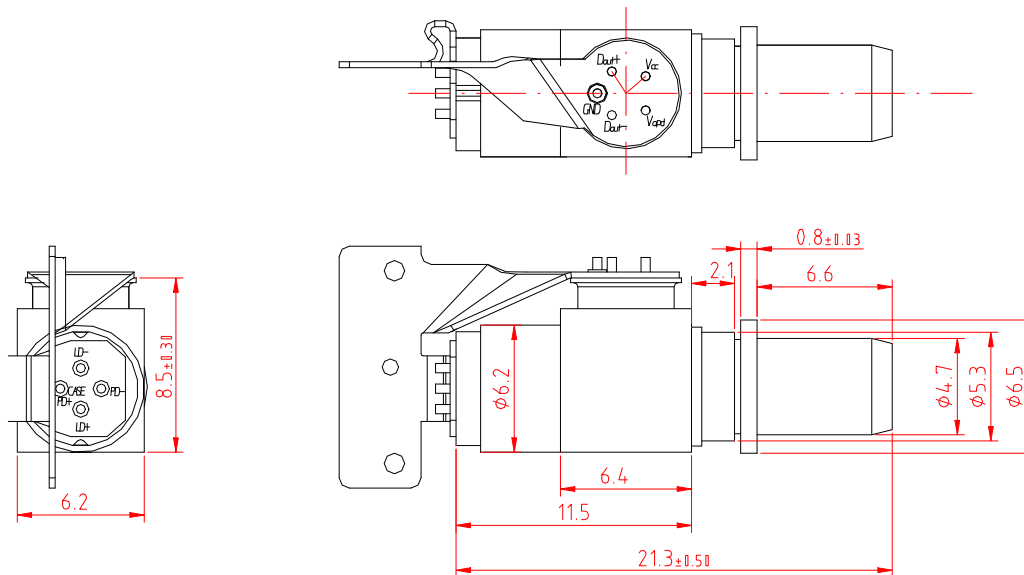


|                             |                 |                          |       |      |      |       |
|-----------------------------|-----------------|--------------------------|-------|------|------|-------|
| Optical Output Power        | Po              | lop=lth+20mA             | 1.50  | --   | --   | mW    |
| Slope efficiency            | SE              | lop=lth+20mA             | 0.075 | --   | --   | mW/mA |
| Central Wavelength          | $\lambda_c$     | lop=lth+20mA             | 1260  | 1270 | 1280 | nm    |
| Spectral Width ,-20dB       | $\Delta\lambda$ | lop=lth+20mA             | --    | --   | 1    | nm    |
| Side-mode suppression Ratio | SMSR            | lop=lth+20mA             | 35    | 40   | --   | dB    |
| Rise/Fall Time              | Tr/Tf           | 20~80%                   | --    | --   | 50   | ps    |
| Tracking Error              | TE              | lop=lth+20mA,<br>-40 ~85 | -1.5  | --   | +1.5 | dB    |

**Receiver Optical& Electrical Characteristics(Tc=25 , unless otherwise noted)**

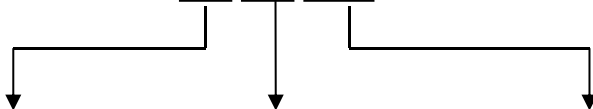
| Parameter            | Symbol      | Test Condition        | Min  | Typ  | Max  | Unit |
|----------------------|-------------|-----------------------|------|------|------|------|
| Operating Voltage    | Vcc         | --                    | 3.0  | 3.3  | 3.6  | V    |
| Supply current       | Icc         | Vcc=3.3V              | 40   | 55   | 70   | mA   |
| Operating Wavelength | $\lambda_c$ | --                    | 1575 | 1577 | 1585 | nm   |
| Sensitivity          | Sen         | 10.3125Gbps,PRBS31,   | --   | --   | -24  | dBm  |
| Overload             | OL          | 1577nm,ER=6dB         | -5   | --   | --   | dBm  |
| Breakdown Voltage    | Vbr         | lop=10uA              | 25   | 34   | 40   | V    |
| Optical Crosstalk    | Xtalk       | 1270nm Internal Laser | --   | --   | -40  | dB   |

**Outline Diagram and Pin Assignment (Unit:mm)**



**Order Information:**

SAN-U P/N: 403 034 0500





厦门三优光电股份有限公司

XIAMEN SAN-U OPTRONICS CO., LTD.

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Product Type

403: BOSA

Data Rate

034: 10G

Serial Number

0500

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