

## T-11-2500-D3-SXX



### Features

- InGaAs/InP PIN Photodiode with transimpedance amplifier
- High sensitivity with AGC\*
- Differential ended output
- Single +3.3V operation
- -40 to 85°C operating temperature
- SC/LC/MU ROSA package
- 2.5Gbps SONET/SDH receivers application
- 2.5Gbps ATM receiver application

### Absolute Maximum Rating (Tc=25°C)

| Parameter             | Symbol    | Value      | Unit |
|-----------------------|-----------|------------|------|
| Supply Voltage        | $V_{CC}$  | 3.8        | V    |
| Operating Temperature | $T_{opr}$ | -40 to +85 | °C   |
| Storage Temperature   | $T_{stg}$ | -40 to +85 | °C   |

### DC Electrical Characteristics(Tc=25°C)

| Parameter                   | Symbol   | Min | Typical | Max | Unit |
|-----------------------------|----------|-----|---------|-----|------|
| Power Supply                | $V_{CC}$ | 3.0 | 3.3     | 3.6 | V    |
| Differential Output Voltage | $V_d$    | -   | 0.6     | -   | V    |
| Supply Current (no load)    | $I_{CC}$ | -   | 26      | 38  | mA   |

(Operating at  $V_{CC}=3.3V$ ,  $T_c=25^\circ C$ ,  $\lambda=1310nm$ , 9/125 $\mu m$  SM fiber)

### AC/Optical and Electrical Characteristics(Tc=25°C)

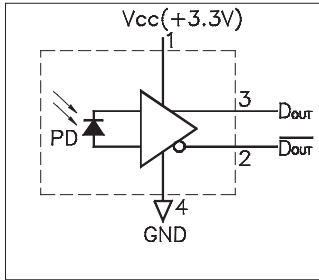
| Parameter                   | Symbol    | Min  | Typical | Max  | Unit | Test Condition   |
|-----------------------------|-----------|------|---------|------|------|--|
| Detection Range             |           | 1100 | 1310    | 1650 | nm   | -  |
| Gain @ 10 Mbps Differential | G         | -    | 27      | -    | V/mW | $\lambda=1310nm$   |
| Bandwidth                   | BW        | 1.7  | 1.9     | -    | GHz  | -  |
| Saturation Power            | $P_{sat}$ | -3   | 0       | -    | dBm  | $\lambda=1310nm$   |
| Sensitivity                 | Sens      | -    | -21     | -20  | dBm  | BER=10 <sup>-10</sup> @ 2.48832Gbps, PRBS23                |
| Output Resistance           | $R_{out}$ | 40   | 53      | 65   | ohm  | -  |
| Low frequency cutoff        | -         | -    | 100     | -    | KHz  | Measured at AC coupled via 22nF Capacitor into 50 ohm load |
| Optical Return Loss         | ORL       | 27   | -       | -    | dB   | -  |

### Connector Options

| Model            | Package | Fiber | Connector |
|------------------|---------|-------|-----------|
| T-11-2500-D3-SSC | ROSA    | -     | FC        |
| T-11-2500-D3-SLC | ROSA    | -     | LC        |
| T-11-2500-D3-SMU | ROSA    | -     | MU        |

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## Pin Assignment



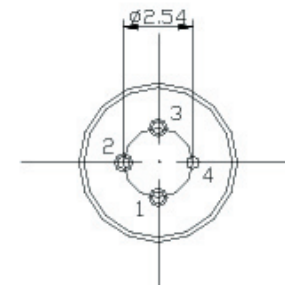
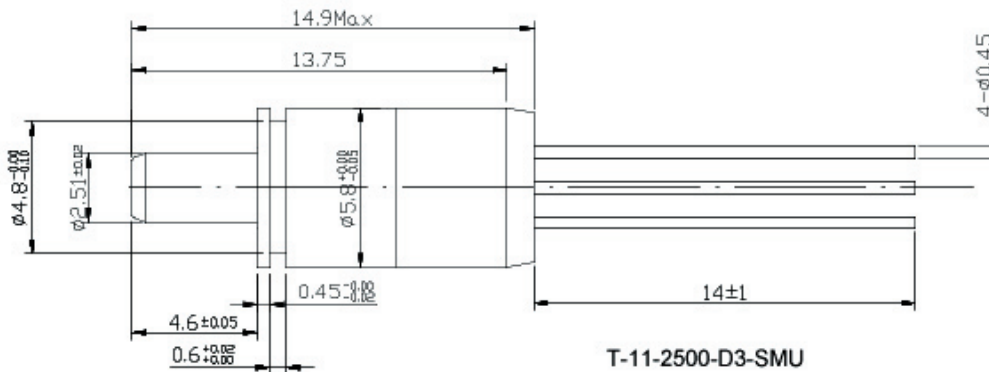
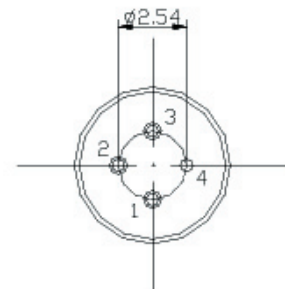
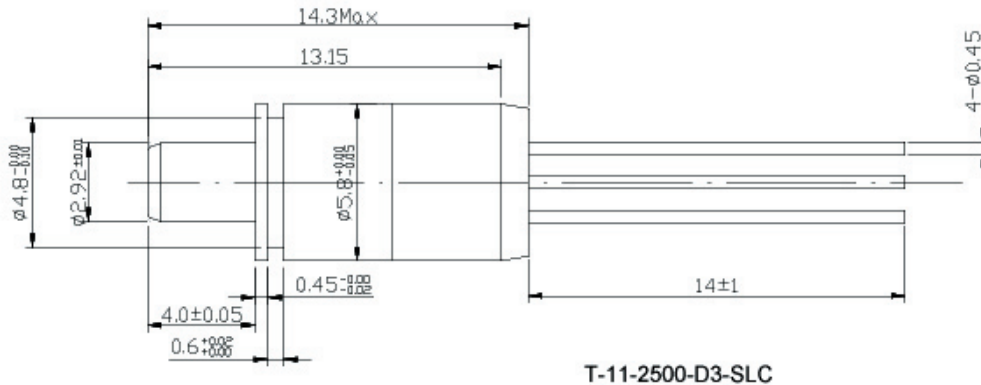
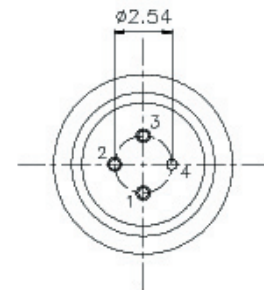
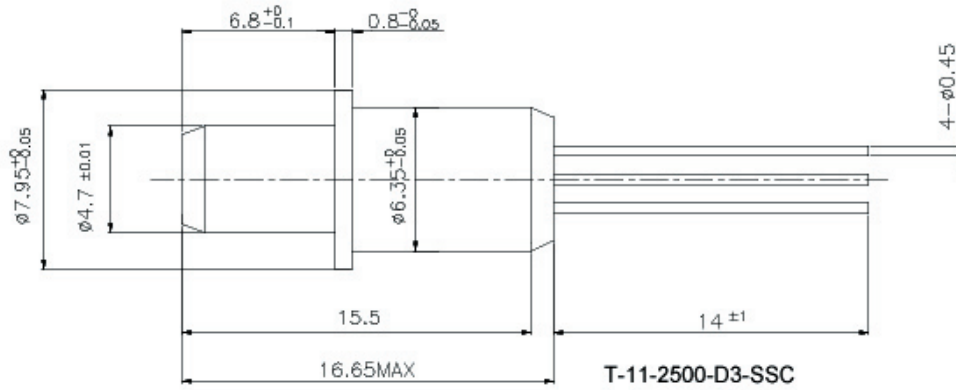
### Pin assignment

- 1~Vcc
- 2~Dout
- 3~Dout
- 4~GND(CASE)

## Outline Drawing-ROSA

### 2.5Gbps PIN-TIA Receiver Modules-ROSA (3.3V)

Units in mm



## 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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