1SS133\_1SS133T

DIODE

SILICON EPITAXIAL PLANAR SWITCHING DIODE

## **DESCRIPTION**

The 1SS333 & 1SS333T are available in DO-34 and DO-35 Package

## **FEATURE**

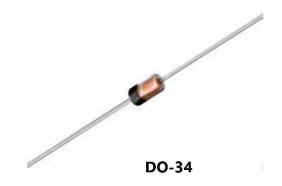
- Glass sealed envelope
- High speed
- · High reliability

## **MECHANICAL DATA**

CASE: DO-34 \ DO-35High-speed switching

• Polarity: Color band denotes cathode

## **PIN DESCRIPTION**



## ORDERING INFORMATION

| Package Type                             | Part Number   |  |
|--|---------------|--|
| DO-34                                    | 1SS133        |  |
| DO-35                                    | 1SS133T       |  |
| SPQ                                      | 500 pcs / Bag |  |
| AiT provides all RoHS Compliant Products |               |  |





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## **ABSOLUTE MAXIMUM RATINGS**

T<sub>a</sub> = 25°C, unless otherwise specified.

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|--|----------------|
| V <sub>RM</sub> , Peak Reverse Voltage                 | 90 V           |
| V <sub>R</sub> , DC Reverse Voltage                    | 80 V           |
| I <sub>F(AV)</sub> , Average Rectified Forward Current | 130 mA         |
| I <sub>FM</sub> , Peak Forward Current                 | 400 mA         |
| I <sub>FSM</sub> , Surge Forward Current at t < 1 s    | 600 mA         |
| P <sub>tot</sub> , Power Dissipation                   | 300 mW         |
| T <sub>j</sub> , Junction Temperature                  | 175 ℃          |
| T <sub>STG</sub> , Storage Temperature Range           | - 65 ~ + 175 ℃ |

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

#### **ELECTRICAL CHARACTERISTICS**

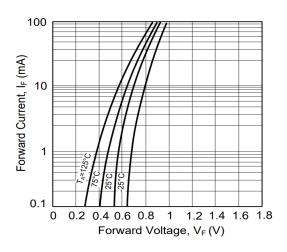
 $T_a = 25$ °C, unless otherwise specified.

| Parameter                     | Symbol          | Conditions  | Max. | Unit |
|-------------------------------|-----------------|---|------|------|
| Forward Voltage               | V <sub>F</sub>  | I <sub>F</sub> = 100 mA                                   | 1.2  | V    |
| Reverse Current               | I <sub>R</sub>  | V <sub>R</sub> = 80 V                                     | 0.5  | μΑ   |
| Capacitance between Terminals | Ст              | V <sub>R</sub> = 0.5 V, f = MHz                           | 2    | pF   |
| Reverse Recovery Time         | t <sub>rr</sub> | $I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 50 \Omega$ | 4    | ns   |



#### **TYPICAL CHARACTERISTICS**

Fig 1. Forward Characteristics



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Fig 3. Capacitance Between Terminal Characteristics

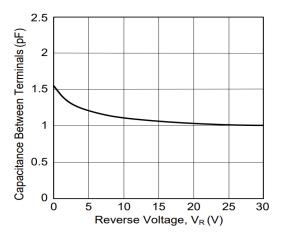


Fig 5. Surge current characteristics

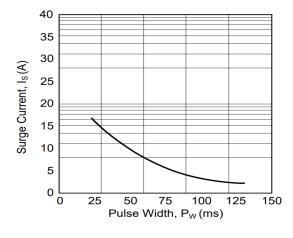


Fig 2. Reverse Characteristics

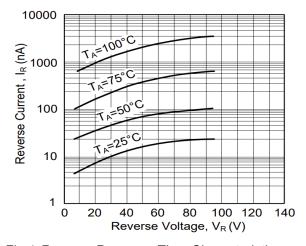


Fig 4. Reverse Recovery Time Characteristics

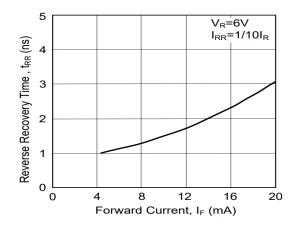
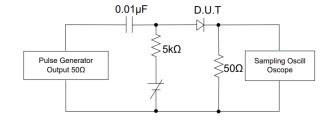


Fig 6. Reverse Recovery Time (trr)

Measurement Circuit



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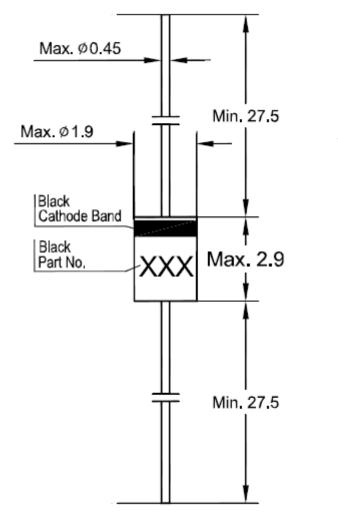


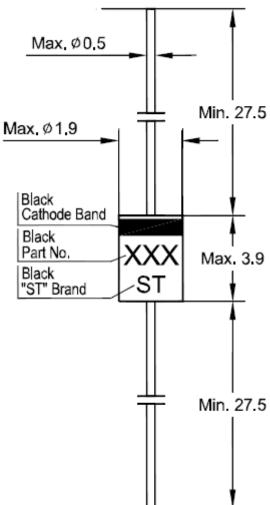
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## **PACKAGE INFORMATION**

Dimension in DO-34 Package (Unit: mm)

Dimension in DO-35 Package (Unit: mm)





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#### **IMPORTANT NOTICE**

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