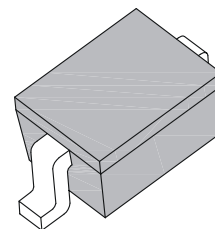


Two Terminals SMD Switching Diode

Features

- Low Forward Voltage
- Fast Reverse Recovery Time
- Small Total Capacitance
- RoHS Compliant



SOD-323

Mechanical Data

| | |
|-------------------|---|
| Case: | SOD-323, Plastic Case |
| Terminals: | Solderable per MIL-STD-750, Method 2026 |
| Polarity: | Color band denotes cathode end |
| Weight: | Approx. 0.0041 gram |

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

| Symbol | Description | TWD4148-160WS | Unit | Conditions |
|--------------------------|---|---------------|-------------|------------|
| | Marking Code | UF | | |
| V_{RM} | Max. Reverse Voltage | 80 | V | |
| V_RRM | Peak Reverse Voltage | 85 | V | |
| I_{FM} | Max. Peak Forward Current | 300 | mA | |
| I_{F(AV)} | Max. Forward Average Current at $T_A=25^{\circ}C$ | 100 | mA | |
| I_{FSM} | Peak Forward Surge Current, Pulse Width=10mS | 2.0 | A | |
| P_D | Power Dissipation | 200 | mW | Note |
| T_J | Junction Temperature | 150 | $^{\circ}C$ | |
| T_{STG} | Storage Temperature Range | -55 to +150 | $^{\circ}C$ | |

Note: Mounted on a glass epoxy circuit board of 20x20mm, pad dimension of 4x4mm.

Two Terminals SMD Switching Diode

TWD4148-160WS

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

| Symbol | Description | TYP. | MAX. | Unit | Conditions |
|-----------------------|----------------------------|------|------|------|----------------------------|
| V_F | Max. Forward Voltage | 0.60 | - | V | I _F =1mA |
| | | 0.72 | - | | I _F =10mA |
| | | 0.90 | 1.20 | | I _F =100mA |
| I_R | Reverse Current | - | 0.5 | μA | V _R =80V |
| C_T | Total Capacitance | 0.9 | 3.0 | pF | V _R =0V, f=1MHz |
| T_{rr} | Max. Reverse Recovery Time | 1.6 | 4.0 | nS | I _F =10mA , |

Typical Characteristics Curves

Fig.1- Typical Instantaneous Forward Characteristics

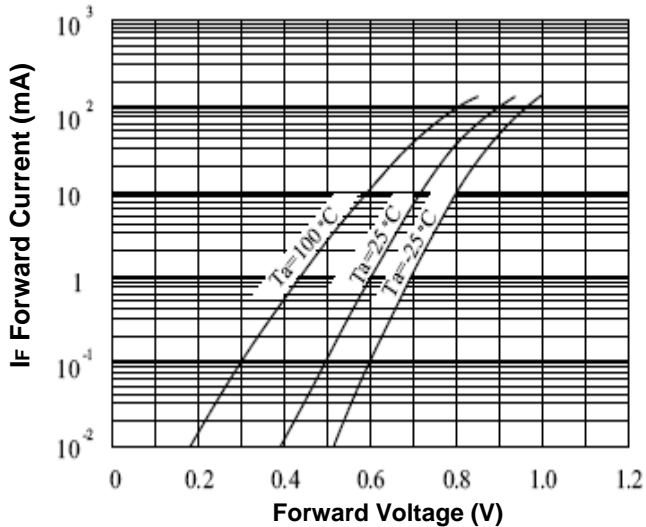
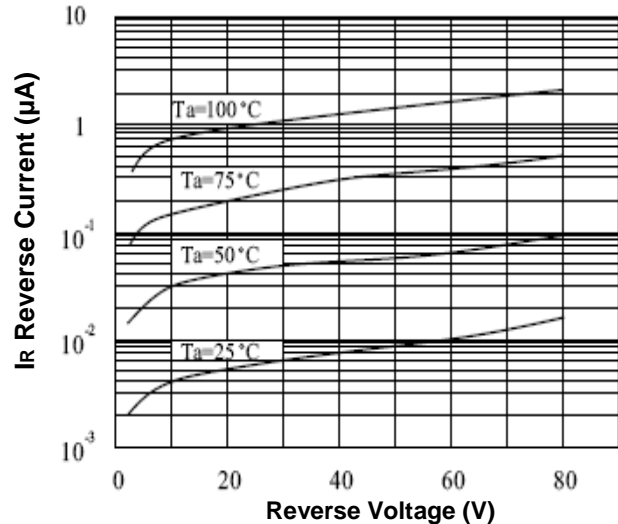


Fig.2- Typical Instantaneous Reverse Characteristics Curve



Two Terminals SMD Switching Diode

TWD4148-160WS

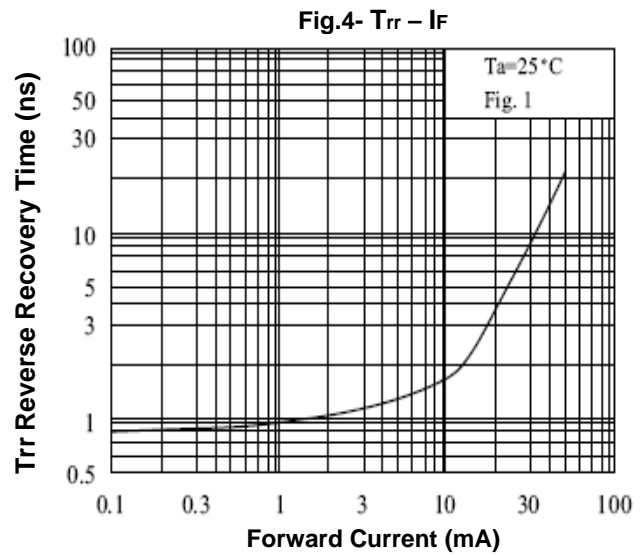
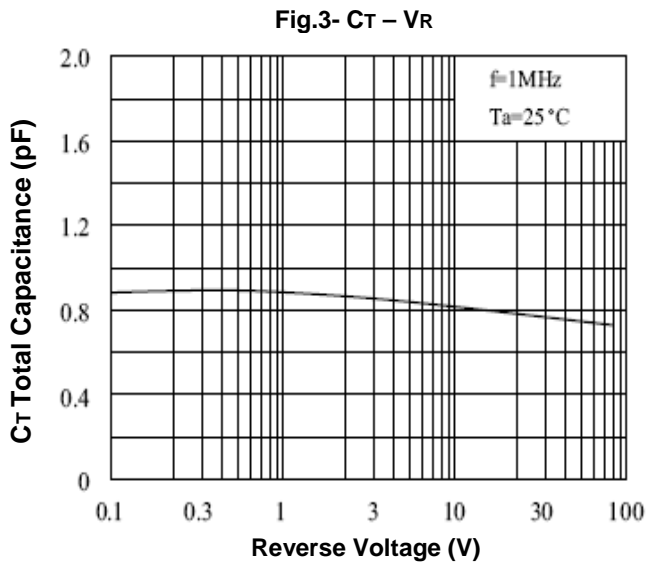
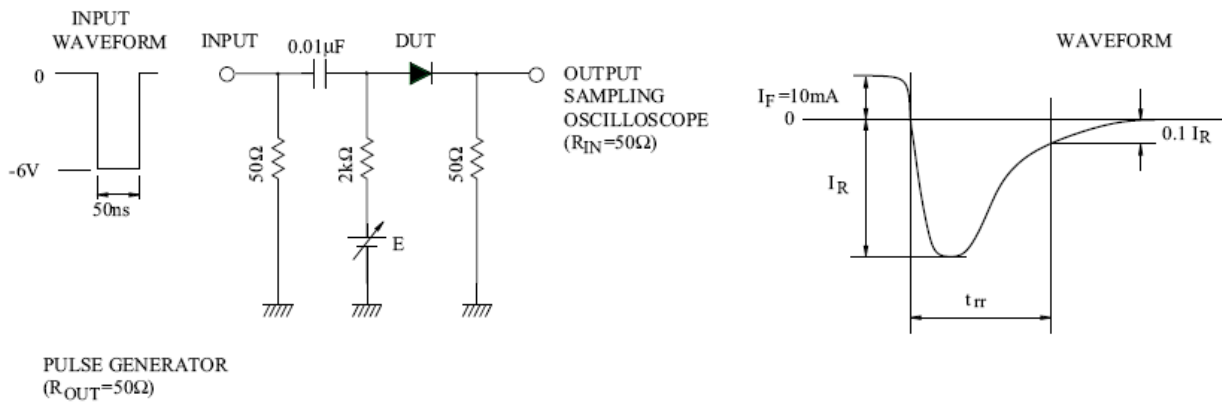


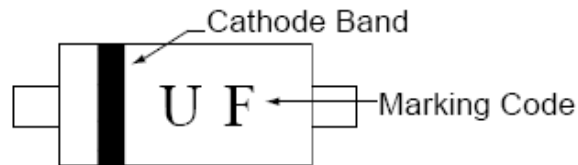
Fig. 1. REVERSE RECOVERY TIME(t_{rr}) TEST CIRCUIT



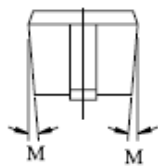
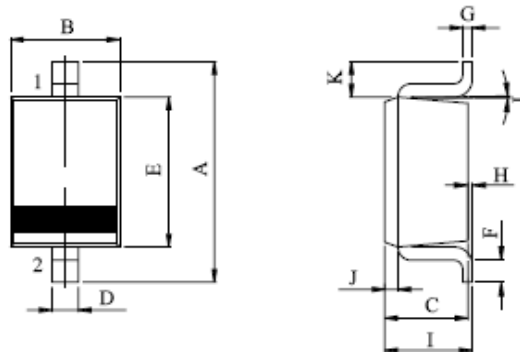
Two Terminals SMD Switching Diode

TWD4148-160WS

Marking Information:



Dimensions in mm



1. ANODE
2. CATHODE

| DIM | MILLIMETERS |
|-----|-----------------|
| A | 2.50±0.1 |
| B | 1.25±0.05 |
| C | 0.90±0.05 |
| D | 0.30+0.06/-0.04 |
| E | 1.70±0.05 |
| F | MIN 0.17 |
| G | 0.126±0.03 |
| H | 0~0.1 |
| I | 1.0 MAX |
| J | 0.15±0.05 |
| K | 0.4±0.05 |
| L | 2°+4/-2 |
| M | 4~6° |

SOD-323

Two Terminals SMD Switching Diode

TWD4148-160WS

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