



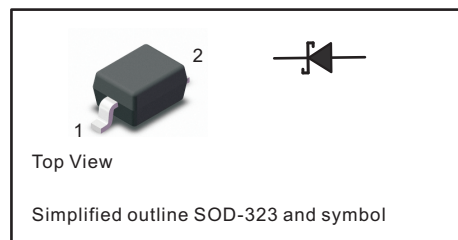
### Schottky Barrier Diode

#### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance

#### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



#### MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

#### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter   | Symbols         | SD103AWS  | SD103BWS | SD103CWS | Units |
|---|-----------------|---|----------|----------|-------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$       | 40  | 30       | 20       | V     |
| RMS reverse voltage   | $V_{RMS}$       | 28  | 21       | 14       | V     |
| Working Peak Reverse Voltage  | $V_{DC}$        | 40  | 30       | 20       | V     |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 13  |          |          | A     |
| Maximum Instantaneous Forward Voltage   | $V_F$           | $I_F=20mA$  |          |          | 0.37  |
|   |                 | $I_F=200mA$   |          |          | 0.60  |
| Power Dissipation   | $P_D$           | 200   |          |          | mW    |
| Reverse current   | $I_R$           | SD103AWS, $V_R=30V$                                   | 5        | –        | uA    |
|   |                 | SD103BWS, $V_R=20V$                                   | –        | 5        |       |
|   |                 | SD103CWS, $V_R=10V$                                   | –        | –        |       |
| Thermal Resistance, Junction to Ambient Air   | $R_{\theta JA}$ | 300   |          |          | °C/W  |
| Reverse voltage   | $V_{(BR)R}$     | SD103AW   | 40       |          | V     |
|   |                 | SD103BW   | 30       |          |       |
|   |                 | SD103CW   | 20       |          |       |
| Reverse recovery time   | $t_{rr}$        | $I_F=I_R=200mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$ |          |          | ns    |
| Forward Continuous Current  | $I_{FM}$        | 350   |          |          | mA    |
| Total capacitance   | $C_{tot}$       | $V_R=0V, f=1MHz$                                      |          |          | pF    |
| Junction temperature  | $T_j$           | 125   |          |          | °C    |
| Storage temperature   | $T_{stg}$       | -55 ~ +150  |          |          | °C    |



Fig.1 Power Derating Curve

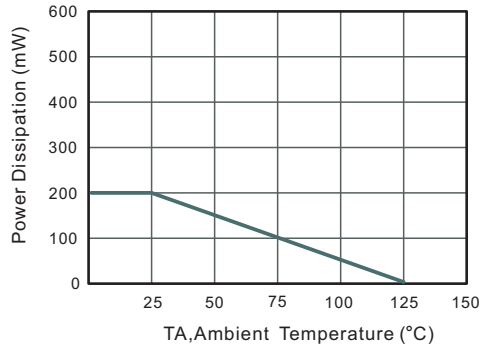


Fig.2 Typical Reverse Characteristics

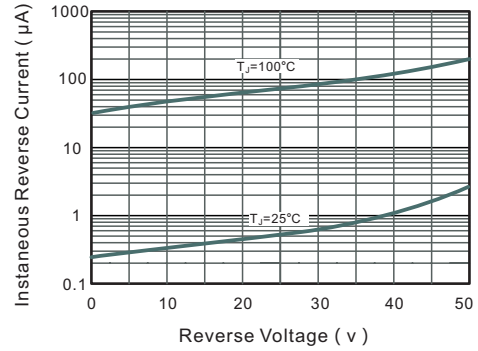


Fig.3 Forward Characteristics

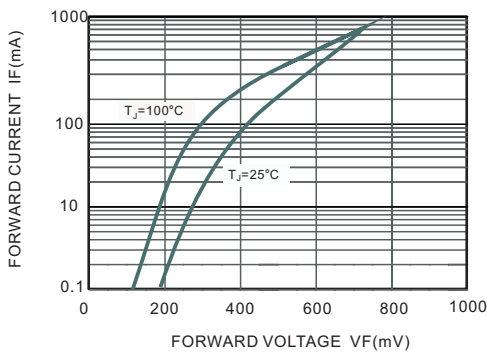


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

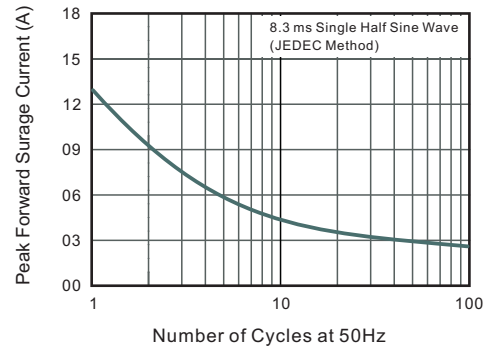


Fig.5 Typical Junction Capacitance

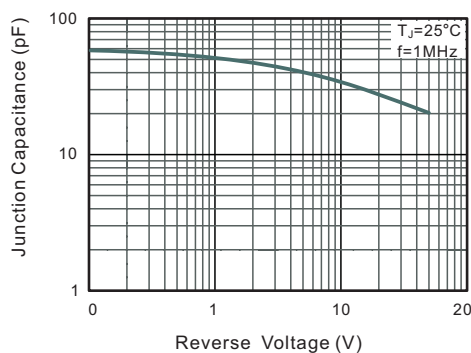
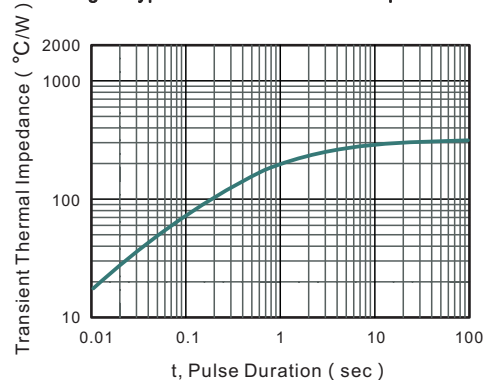


Fig.6 Typical Transient Thermal Impedance

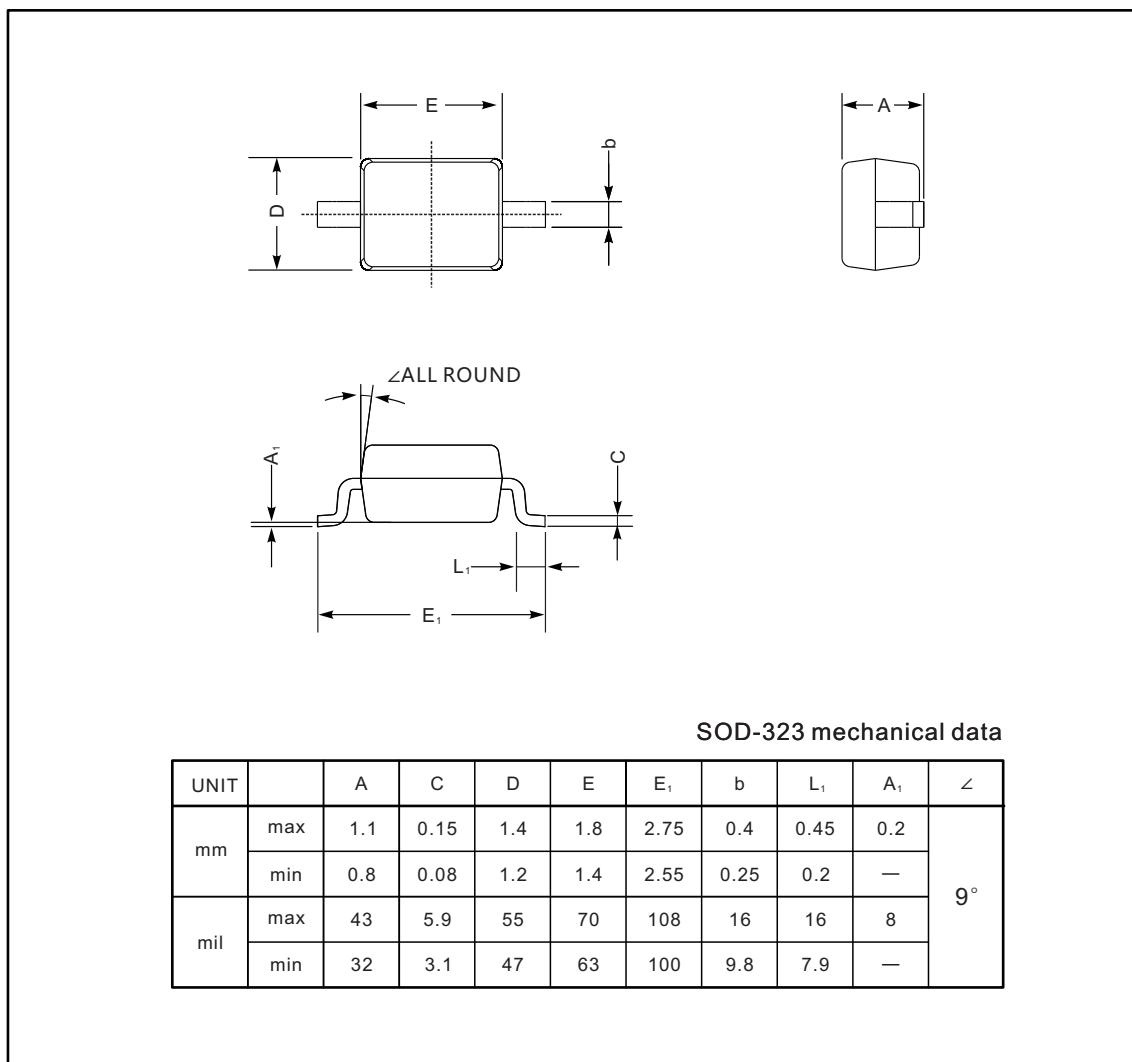




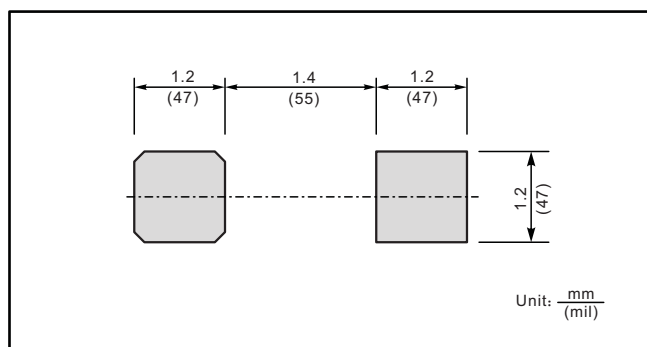
**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-323



**The recommended mounting pad size**



**Marking**

| Type number | Marking code |
|-------------|--------------|
| SD103AWS    | S4           |
| SD103BWS    | S5           |
| SD103CWS    | S6           |

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