

**SOD-323**

### FEATURES

- I High Current Rectifier Schottky Diode with Low  $V_F$  Drop
- I Low Voltage, Low Inductance
- I For Power Supply
- I For Detection and Step-up-Conversion



**MARKING: W5**

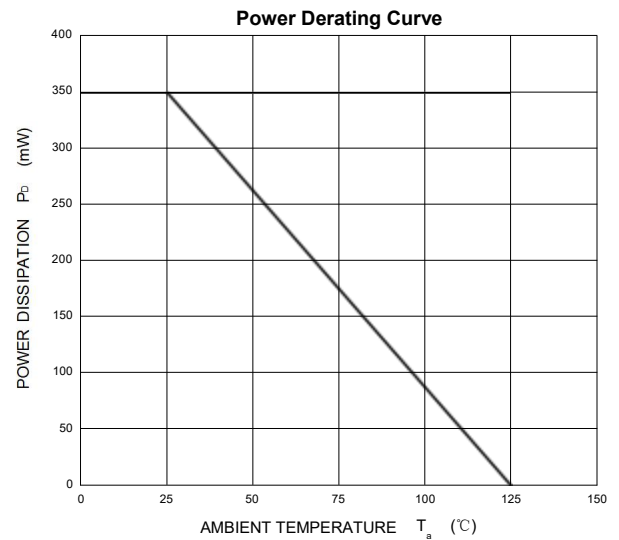
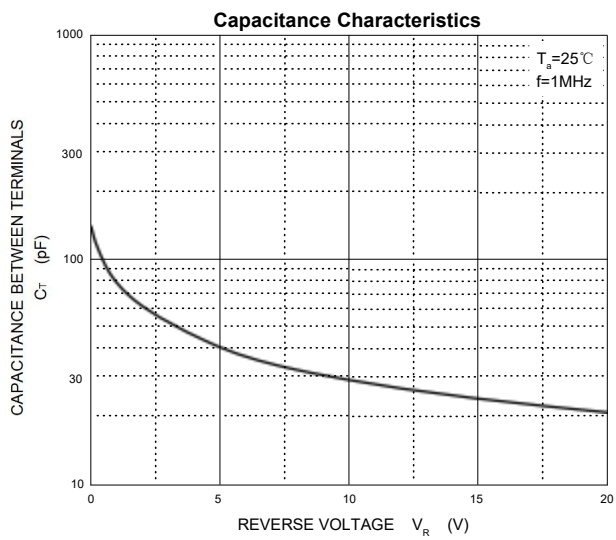
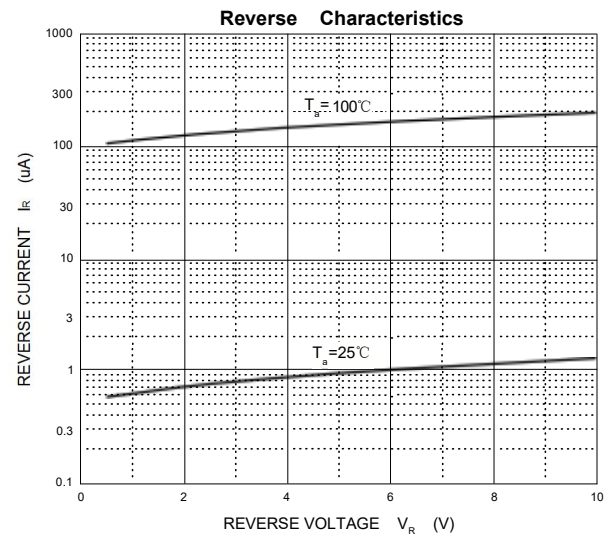
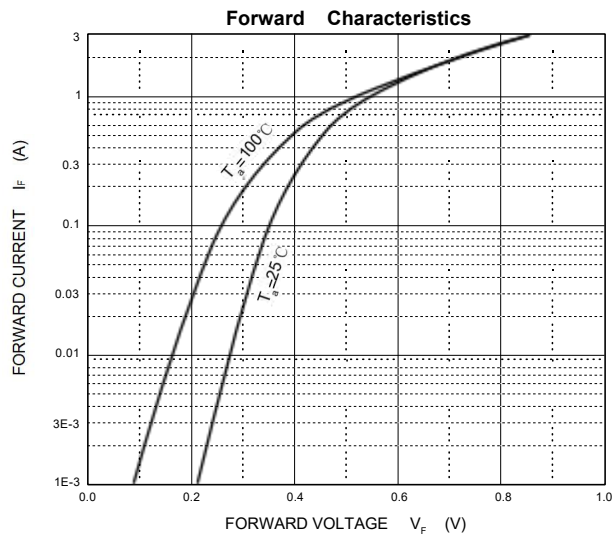
### MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted )

| Symbol          | Parameter                                                    | Value           | Unit                        |
|-----------------|--------------------------------------------------------------|-----------------|-----------------------------|
| $V_R$           | DC Blocking Voltage                                          | 10              | V                           |
| $I_F$           | Forward Current                                              | 3               | A                           |
| $I_{FSM}$       | Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | 5               |                             |
| $P_D$           | Power Dissipation                                            | 350             | mW                          |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient                  | 286             | $^{\circ}\text{C}/\text{W}$ |
| $T_j$           | Operating Junction Temperature Range                         | $-40 \sim +125$ | $^{\circ}\text{C}$          |
| $T_{stg}$       | Storage Temperature Range                                    | $-55 \sim +150$ | $^{\circ}\text{C}$          |

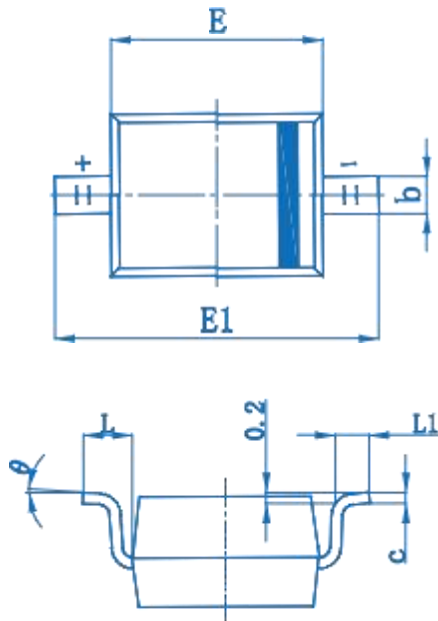
### ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter         | Symbol     | Test conditions                | Min | Typ | Max  | Unit          |
|-------------------|------------|--------------------------------|-----|-----|------|---------------|
| Reverse voltage   | $V_{(BR)}$ | $I_R=1\text{mA}$               | 10  |     |      | V             |
| Reverse current   | $I_R$      | $V_R=5\text{V}$                |     |     | 15   | $\mu\text{A}$ |
|                   |            | $V_R=8\text{V}$                |     |     | 25   | $\mu\text{A}$ |
| Forward voltage   | $V_F$      | $I_F=100\text{mA}$             |     |     | 0.38 | V             |
|                   |            | $I_F=500\text{mA}$             |     |     | 0.5  |               |
|                   |            | $I_F=1000\text{mA}$            |     |     | 0.6  |               |
| Total capacitance | $C_{tot}$  | $V_R=5\text{V}, f=1\text{MHz}$ |     | 30  |      | pF            |

## Typical Characteristics

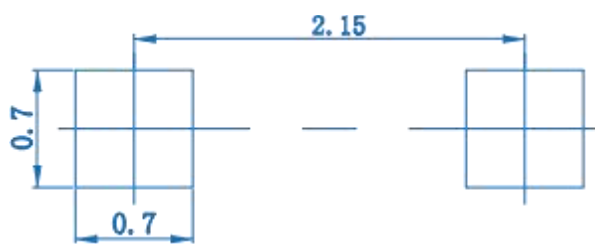


### SOD-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      |                           | 1.100 |                      | 0.043 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.800                     | 1.000 | 0.031                | 0.039 |
| b      | 0.250                     | 0.350 | 0.010                | 0.014 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E      | 1.600                     | 1.800 | 0.063                | 0.071 |
| E1     | 2.500                     | 2.750 | 0.098                | 0.108 |
| L      | 0.475 REF                 |       | 0.019 REF            |       |
| L1     | 0.250                     | 0.400 | 0.010                | 0.016 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

### SOD-323 Suggested Pad Layout



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.