



## SSCSB16D2

### Schottky Barrier Diode

#### ● Features

- ◇ Small Surface Mounting Type
- ◇ Ideal for Automated Placement
- ◇ Ultrafast Reverse Recovery Time
- ◇ Low Power Loss, High Efficiency
- ◇ Low Forward Voltage Drop
- ◇ High Current Capability
- ◇ RoHS Compliant
- ◇ Moisture Sensitivity: Level 3 per J-STD-020

#### ● Applications

- ◇ Low Voltage
- ◇ High-Frequency Inverters
- ◇ Free Wheeling
- ◇ Switching circuit

#### ● PIN configuration



**SOD-323**



**Circuit Diagram**



**Marking(Top View)**

#### ● Absolute maximum rating @T<sub>A</sub>=25°C

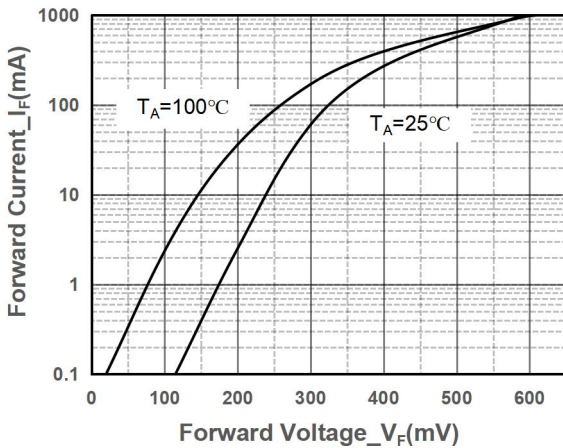
| Parameter  | Symbol           | Value      | Unit |
|--|------------------|------------|------|
| Repetitive Peak Reverse Voltage                    | V <sub>RRM</sub> | 60         | V    |
| RMS Voltage  | V <sub>RMS</sub> | 42         | V    |
| DC Blocking Voltage                                | V <sub>DC</sub>  | 60         | V    |
| Average Rectified Output Current                   | I <sub>O</sub>   | 1          | A    |
| Non-repetitive Peak Forward Surge Current @t=8.3ms | I <sub>FSM</sub> | 10         | A    |
| Power Dissipation                                  | P <sub>D</sub>   | 250        | mW   |
| Typical thermal resistance                         | R <sub>θJA</sub> | 400        | °C/W |
| Operating Temperature                              | T <sub>J</sub>   | -40 ~ +125 | °C   |
| Storage Temperature                                | T <sub>STG</sub> | -55~ +150  | °C   |



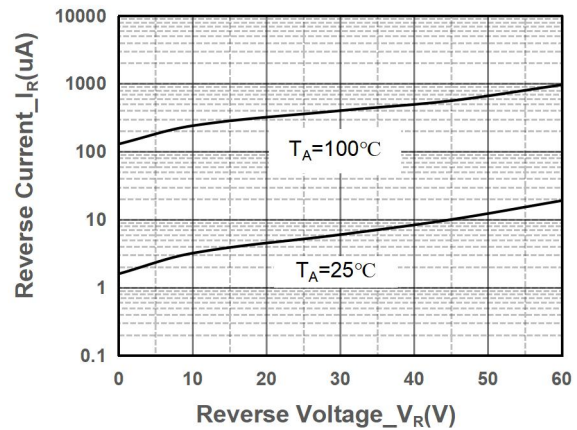
● **Electrical Characteristics @ $T_A=25^{\circ}\text{C}$**

| Parameter                 | Symbol      | Conditions                         | Min. | Typ. | Max. | Unit          |
|---------------------------|-------------|------------------------------------|------|------|------|---------------|
| Reverse Breakdown voltage | $V_{(BR)R}$ | $I_R = 0.1\text{mA}$               | 60   |      |      | V             |
| Reverse Leakage Current   | $I_R$       | $V_R = 60\text{V}$                 |      |      | 100  | $\mu\text{A}$ |
| Forward Voltage           | $V_F$       | $I_F = 1\text{A}$                  |      |      | 0.7  | V             |
| Total Capacitance         | $C_T$       | $V_R = 4\text{V}, f = 1\text{MHz}$ |      |      | 120  | pF            |

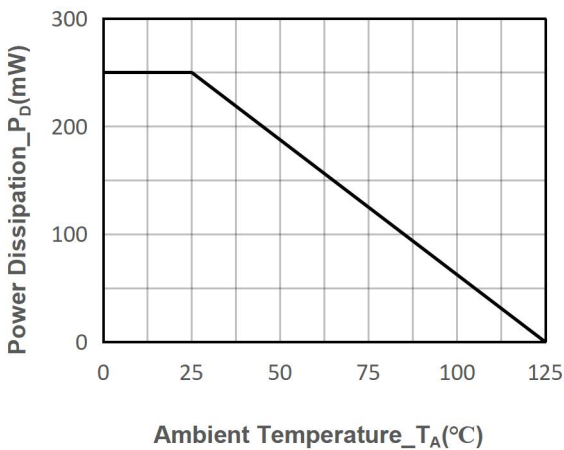
● **Typical Performance Characteristics**



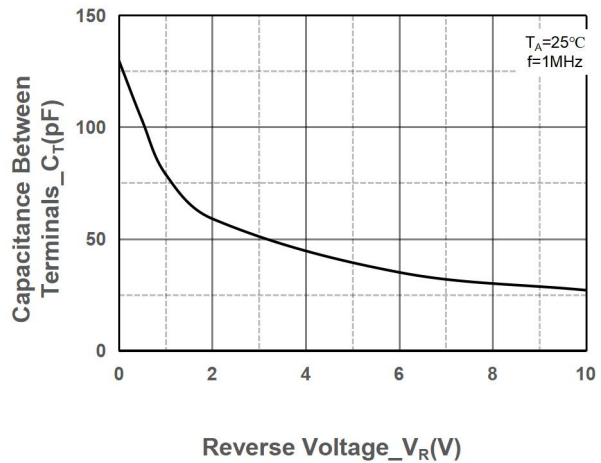
**Forward Voltage vs. Forward Current**



**Reverse Voltage vs. Reverse Current**



**Power Derating vs. Ambient Temperature**



**Capacitance Characteristics vs. Reverse**



## ● Package Information

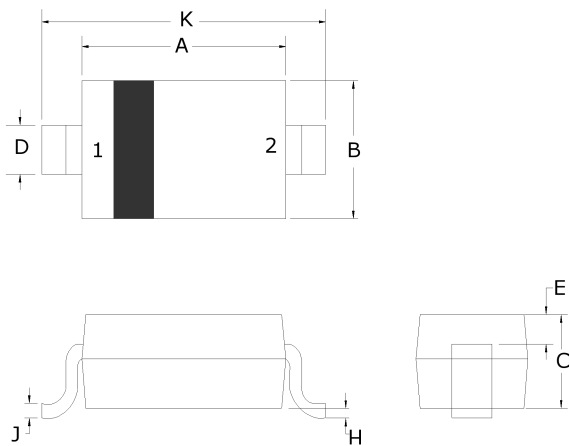
### Ordering Information

| Device    | Package | Marking | Qty per Reel | Reel Size |
|-----------|---------|---------|--------------|-----------|
| SSCSB16D2 | SOD-323 | SM      | 3000         | 7 Inch    |

### Mechanical Data

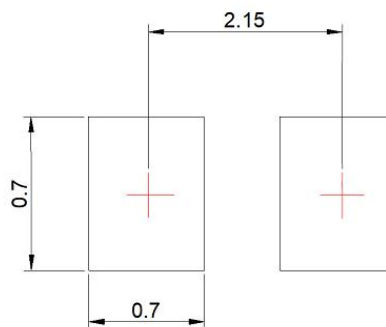
Case: SOD-323

Case Material: Molded Plastic. UL Flammability



| Dim | Millimeters |      |
|-----|-------------|------|
|     | Min         | Max  |
| A   | 1.60        | 1.80 |
| B   | 1.2         | 1.40 |
| C   | 0.80        | 0.90 |
| D   | 0.25        | 0.35 |
| E   | 0.15REF     |      |
| H   | 0           | 0.10 |
| J   | 0.08        | 0.15 |
| K   | 2.50        | 2.70 |

### Recommended Pad outline (Unit:mm)





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