



SSCSBAS316D2

Fast Switching Diode

● Features

- ✧ Fast Switching Speed
- ✧ Ultra-Small Surface Mount Package
- ✧ Low Reverse Leakage Current
- ✧ Ideal for Battery Powered Portable Applications
- ✧ RoHS Compliant/Green EMC
- ✧ Moisture Sensitivity: Level 3 per J-STD-020

● PIN configuration



SOD-323



Circuit Diagram

● Applications

- ✧ High speed switching for detection
- ✧ Battery Powered Portable
- ✧ Mobile phones, laptops and other electronic devices



Marking (Top View)

● Absolute maximum rating @T_A=25°C

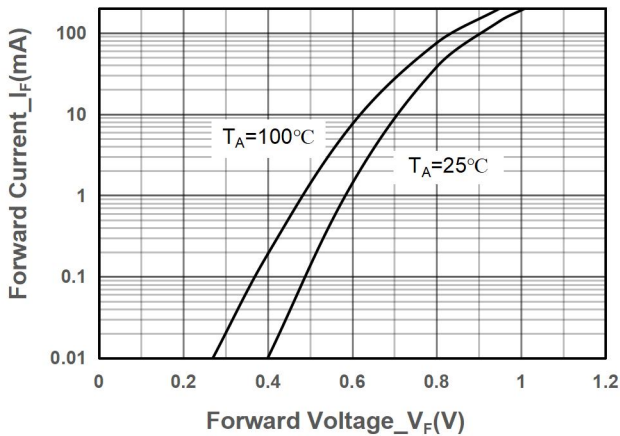
| Parameter | Symbol | Value | Unit |
|--|-------------------|------------|------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | V |
| Repetitive Peak Reverse Voltage | V _{R RM} | | |
| Working Peak Reverse Voltage | V _{R WM} | 100 | V |
| Reverse Voltage(DC) | V _R | | |
| Average Rectified Forward Current | I _O | 250 | mA |
| Non-Repetitive Peak Forward Surge Current@ t=8.3ms | I _{FSM} | 2 | A |
| Power Dissipation | P _D | 250 | mW |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 500 | °C/W |
| Operating Temperature | T _J | -55 ~ +150 | °C |
| Storage Temperature | T _{STG} | -55 ~ +150 | °C |



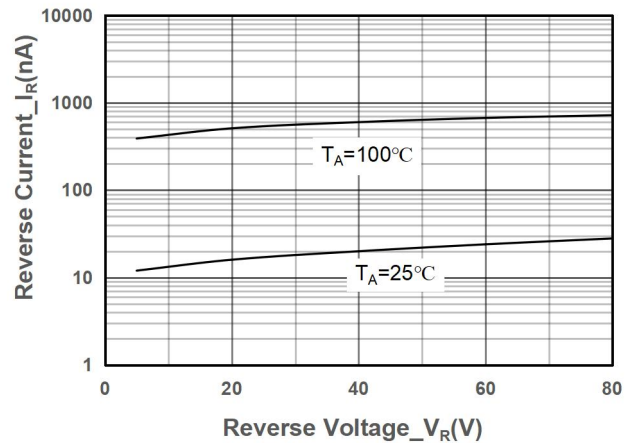
Electrical Characteristics @T_A=25°C

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|-----------------|---|------|------|-------|------|
| Reverse Voltage | V _{R1} | I _R = 100μA | 100 | | | V |
| Forward Voltage | V _F | I _F = 1mA | | | 0.715 | V |
| | | I _F = 10mA | | | 0.855 | |
| | | I _F = 50mA | | | 1 | |
| | | I _F = 150mA | | | 1.25 | |
| Reverse Current | I _R | V _R = 20V | | | 30 | nA |
| | | V _R = 75V | | | 1 | μA |
| Total Capacitance | C _T | V _R = 0, f = 1MHz | | | 1.5 | pF |
| Reverse Recovery Time | t _{rr} | I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω | | | 4 | ns |

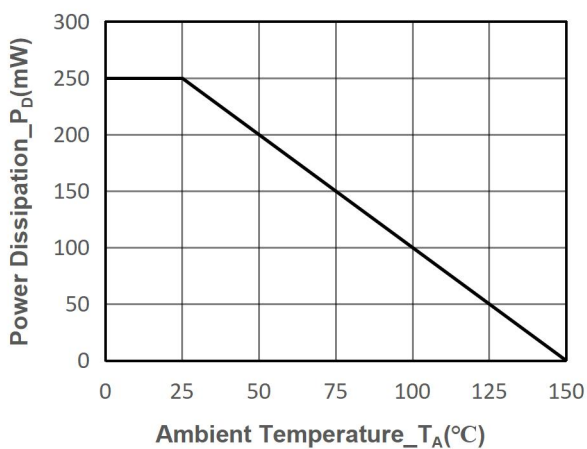
Typical Performance Characteristics



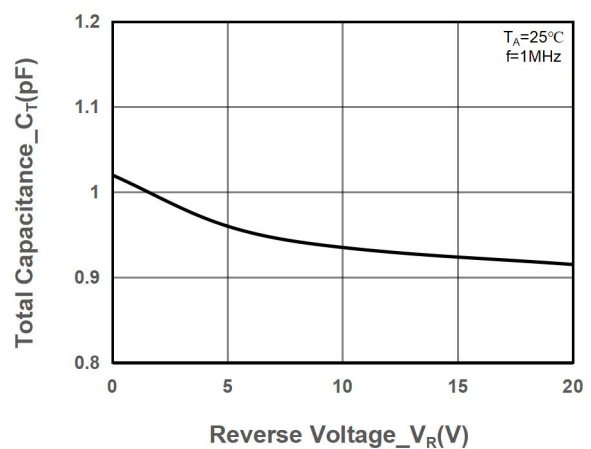
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Total Capacitance vs. Reverse Voltage



● Package Information

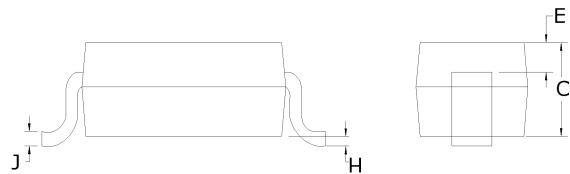
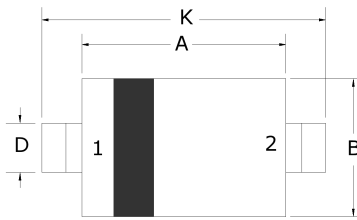
Ordering Information

| Device | Package | Marking | Qty per Reel | Reel Size |
|--------------|---------|---------|--------------|-----------|
| SSCSBAS316D2 | SOD-323 | A6 | 3000 | 7 Inch |

Mechanical Data

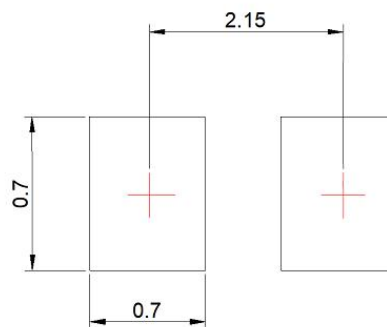
Case: SOD-323

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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