



## SSCSSS12D1 THRU SSCSSS120D1

### Schottky Barrier Diode

#### ● Features

- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Ultrafast reverse recovery time
- ✧ Low power losses, high efficiency
- ✧ Low forward voltage drop
- ✧ High surge capability
- ✧ UL Flammability Classification Rating 94V-0
- ✧ High temperature soldering: 260°C/10 seconds at terminals

#### ● PIN configuration



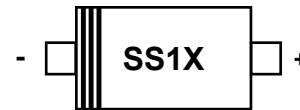
**SOD-123FL**



**Circuit Diagram**

#### ● Applications

- ✧ Low Voltage
- ✧ High-Frequency Inverters
- ✧ Free Wheeling
- ✧ Polarity Protection



**Marking**

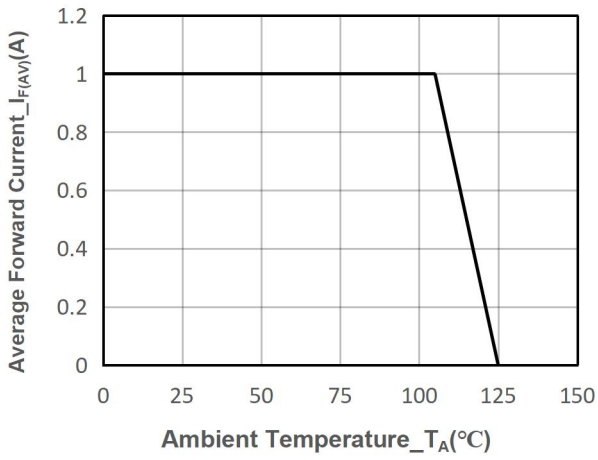
(SS14:SSCSSS14D1 Marking Code)

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

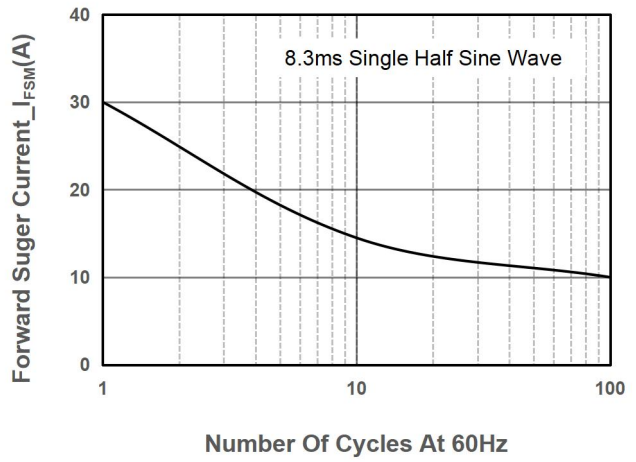
| Parameter   | Symbol             | SS12D1     | SS14D1 | SS16D1 | SS110D1 | SS115D1 | SS120D1 | Unit |
|---|--------------------|------------|--------|--------|---------|---------|---------|------|
| Maximum Peak Repetitive Peak Reverse Voltage          | V <sub>RRM</sub>   | 20         | 40     | 60     | 100     | 150     | 200     | V    |
| Maximum RMS Voltage                                   | V <sub>RMS</sub>   | 14         | 28     | 42     | 70      | 105     | 140     | V    |
| Maximum DC Blocking Voltage                           | V <sub>DC</sub>    | 20         | 40     | 60     | 100     | 150     | 200     | V    |
| Maximum Average Forward Rectified Current             | I <sub>F(AV)</sub> | 1.0        |        |        |         |         |         | A    |
| Non-repetitive Peak Forward Surge Current<br>@t=8.3ms | I <sub>FSM</sub>   | 30         |        |        |         |         |         | A    |
| Max Instantaneous Forward Voltage at 2 A              | V <sub>F</sub>     | 0.6        | 0.6    | 0.75   | 0.85    | 0.95    | 0.95    | V    |
| Maximum DC Reverse Current T <sub>a</sub> = 25 °C     | I <sub>R</sub>     | 500        |        |        |         |         |         | μA   |
| at Rated DC Blocking Voltage T <sub>a</sub> = 125 °C  |                    | 20         |        |        |         |         |         | mA   |
| Operating Temperature                                 | T <sub>J</sub>     | -55 ~ +125 |        |        |         |         |         | °C   |
| Storage Temperature                                   | T <sub>STG</sub>   | -55 ~ +150 |        |        |         |         |         | °C   |



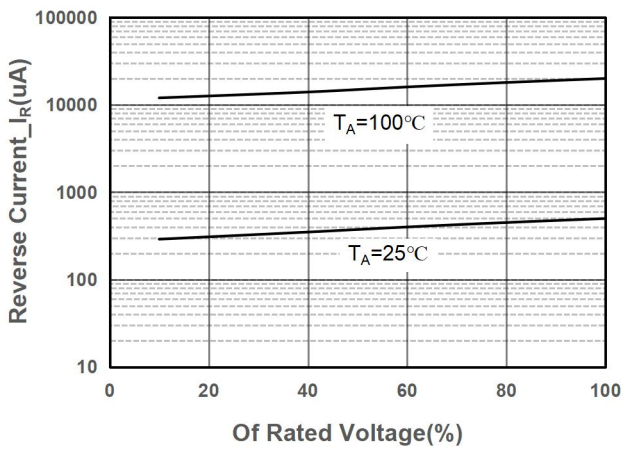
- Typical Performance Characteristics



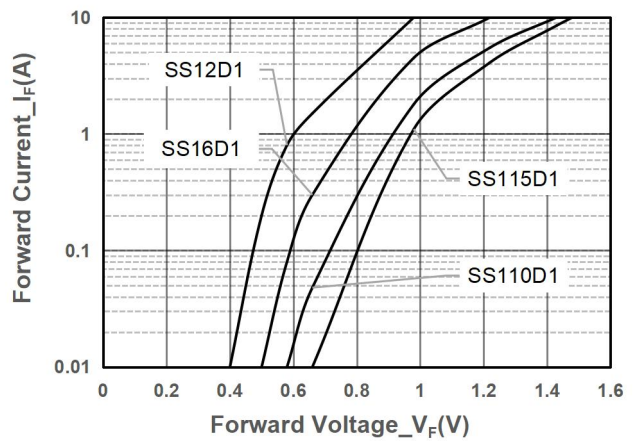
$I_o$  -TL Curve



Surge Forward Current Capability Voltage



Typical Reverse Characteristics



Forward Voltage vs. Forward Current



## ● Package Information

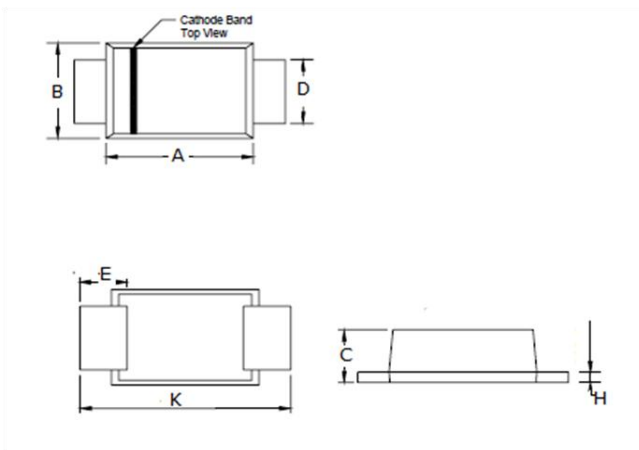
### Ordering Information

| Device      | Package   | Marking | Qty per Reel | Reel Size |
|-------------|-----------|---------|--------------|-----------|
| SSCSSS12D1  | SOD-123FL | SS12    | 3000         | 7 Inch    |
| SSCSSS14D1  | SOD-123FL | SS14    | 3000         | 7 Inch    |
| SSCSSS16D1  | SOD-123FL | SS16    | 3000         | 7 Inch    |
| SSCSSS110D1 | SOD-123FL | SS110   | 3000         | 7 Inch    |
| SSCSSS115D1 | SOD-123FL | SS115   | 3000         | 7 Inch    |
| SSCSSS120D1 | SOD-123FL | SS120   | 3000         | 7 Inch    |

### Mechanical Data

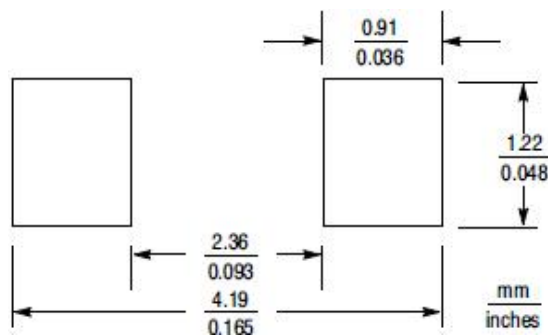
Case: SOD-123FL

Case Material: Molded Plastic. UL Flammability



| Dim      | Millimeters |      |
|----------|-------------|------|
|          | Min         | Max  |
| <b>A</b> | 2.50        | 2.90 |
| <b>B</b> | 1.50        | 1.90 |
| <b>C</b> | 0.095       | 1.20 |
| <b>D</b> | 0.70        | 1.20 |
| <b>E</b> | 0.35        | 0.85 |
| <b>H</b> | 0           | 0.1  |
| <b>K</b> | 3.40        | 3.90 |

### Recommended Pad outline





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