



## SSCSSS32DC THRU SSCSSS320DC

### Schottky Barrier Diode

#### ● Features

- ✧ Reverse Voltage - 20 to 200 V
- ✧ Forward Current - 3.0A
- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Ultrafast reverse recovery time
- ✧ Low power losses, high efficiency
- ✧ Low forward voltage
- ✧ High surge capability
- ✧ UL Flammability Classification Rating 94V-0
- ✧ High temperature soldering: 260°C/10 seconds at terminals

#### ● PIN configuration



**SMC/DO-214AB**



**Circuit Diagram**

#### ● Applications

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



**Marking**

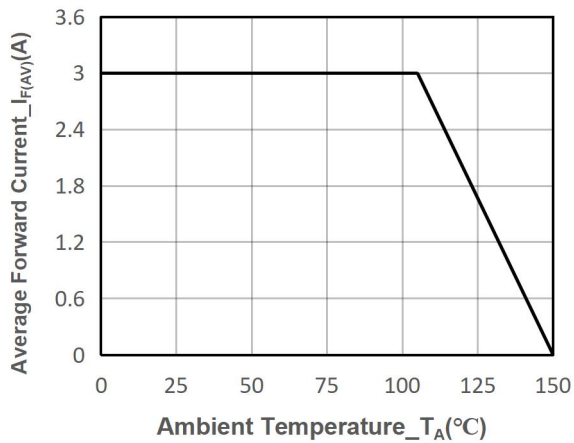
(SS34:SSCSSS34DC Marking Code)

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

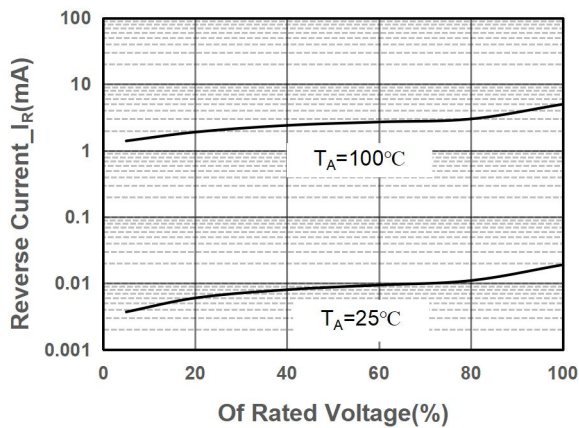
| Parameter                                             | Symbol             | SSCSSS     |      |      |      |       |       |       | Unit |
|-------------------------------------------------------|--------------------|------------|------|------|------|-------|-------|-------|------|
|                                                       |                    | 32DC       | 34DC | 36DC | 38DC | 310DC | 315DC | 320DC |      |
| Maximum Peak Repetitive Peak Reverse Voltage          | V <sub>RRM</sub>   | 20         | 40   | 60   | 80   | 100   | 150   | 200   | V    |
| Maximum RMS Voltage                                   | V <sub>RMS</sub>   | 14         | 28   | 42   | 56   | 70    | 105   | 140   | V    |
| Maximum DC Blocking Voltage                           | V <sub>DC</sub>    | 20         | 40   | 60   | 80   | 100   | 150   | 200   | V    |
| Maximum Average Forward Rectified Current             | I <sub>F(AV)</sub> | 3.0        |      |      |      |       |       |       | A    |
| Non-repetitive Peak Forward Surge Current<br>@t=8.3ms | I <sub>FSM</sub>   | 80         |      |      |      |       |       |       | A    |
| Max Instantaneous Forward Voltage at 3 A              | V <sub>F</sub>     | 0.55       |      | 0.70 | 0.85 |       | 0.95  |       | V    |
| Maximum DC Reverse Current Ta = 25 °C                 | I <sub>R</sub>     | 200        |      |      | 50   |       |       |       | μA   |
| at Rated DC Blocking Voltage Ta =100 °C               |                    | 10         |      |      | 5    |       |       |       | mA   |
| Typical Thermal Resistance                            | R <sub>qJA</sub>   | 60.0       |      |      |      |       |       |       | °C/W |
| Operating Temperature                                 | T <sub>J</sub>     | -55 ~ +125 |      |      |      |       |       |       | °C   |
| Storage Temperature                                   | T <sub>STG</sub>   | -55 ~ +150 |      |      |      |       |       |       | °C   |



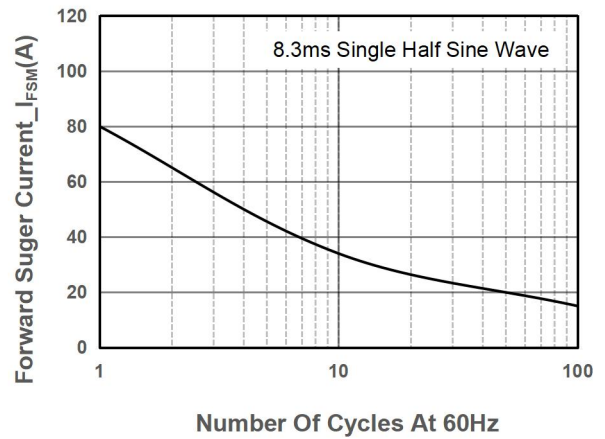
## ● Typical Performance Characteristics



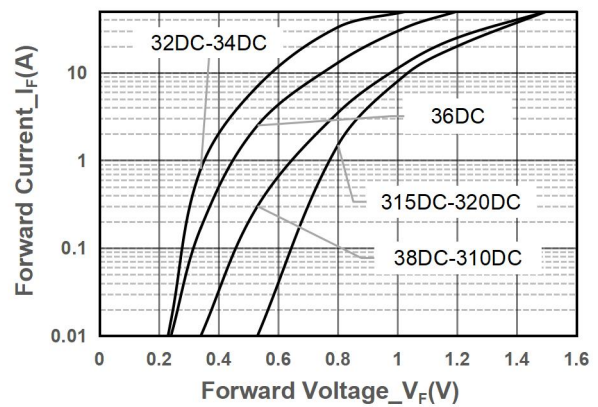
$I_o$  -TL Curve



Typical Reverse Characteristics



Surge Forward Current Capability Voltage



Forward Voltage vs. Forward Current

## ● Package Information



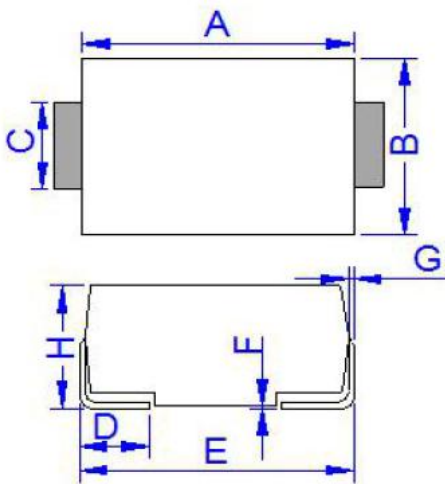
## Ordering Information

| Device      | Package      | Marking | Qty per Reel | Reel Size |
|-------------|--------------|---------|--------------|-----------|
| SSCSSS32DC  | SMC/DO-214AB | SS32    | 3000         | 13 Inch   |
| SSCSSS34DC  | SMC/DO-214AB | SS34    | 3000         | 13 Inch   |
| SSCSSS36DC  | SMC/DO-214AB | SS36    | 3000         | 13 Inch   |
| SSCSSS38DC  | SMC/DO-214AB | SS38    | 3000         | 13 Inch   |
| SSCSSS310DC | SMC/DO-214AB | SS310   | 3000         | 13 Inch   |
| SSCSSS315DC | SMC/DO-214AB | SS315   | 3000         | 13 Inch   |
| SSCSSS320DC | SMC/DO-214AB | SS320   | 3000         | 13 Inch   |

## Mechanical Data

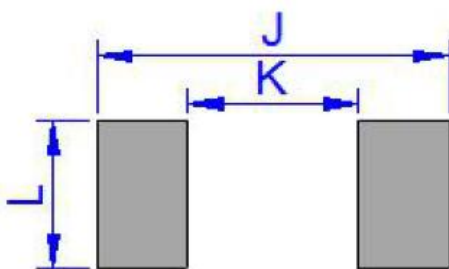
Case: SMC/DO-214AB

Case Material: Molded Plastic. UL Flammability



| DMI | Millimeters |       |
|-----|-------------|-------|
|     | Min         | Max   |
| A   | 6.60        | 7.11  |
| B   | 5.59        | 6.20  |
| C   | 2.75        | 3.20  |
| D   | 0.76        | 1.52  |
| E   | 7.71        | 8.13  |
| F   | 0.051       | 0.023 |
| G   | 0.15        | 0.31  |
| H   | 2.06        | 2.62  |

## Recommended Pad outline



| DMI | Millimeters |      |
|-----|-------------|------|
|     | Min         | Max  |
| J   | 8.12        |      |
| K   |             | 4.69 |
| L   | 3.07        |      |



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