

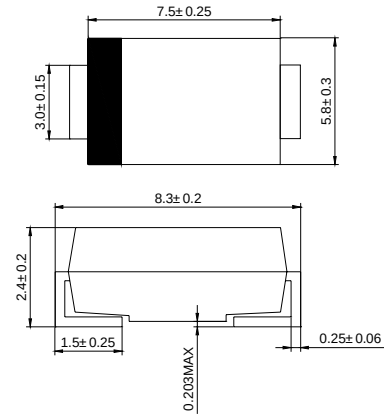
# SS32-SS310

Surface Mount Schottky Barrier Rectifiers



**REVERSE VOLTAGE: 20 - 100 V**  
**FORWARD CURRENT: 3.0 A**

**SMC**



Dimensions in millimeters

## Features

- ◇ Schottky barrier rectifier
- ◇ Guardring protection
- ◇ Low forward voltage
- ◇ Reverse energy tested
- ◇ High current capability
- ◇ Extremely low thermal resistance

## Mechanical Data

- ◇ Case: SMC molded plastic body
- ◇ Polarity: Color band denotes cathode end
- ◇ Mounting position: ANY
- ◇ Weight: 0.007 ounces, 0.21 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| Device marking code                                                                                   |                    | SS32           | SS33 | SS34 | SS35 | SS36 | SS38 | SS39 | SS310 | UNITS |
|-------------------------------------------------------------------------------------------------------|--------------------|----------------|------|------|------|------|------|------|-------|-------|
| Maximum repetitive peak reverse voltage                                                               | V <sub>RRM</sub>   | 20             | 30   | 40   | 50   | 60   | 80   | 90   | 100   | V     |
| Maximum RMS voltage                                                                                   | V <sub>RWS</sub>   | 14             | 21   | 28   | 35   | 42   | 56   | 63   | 70    | V     |
| Maximum DC blocking voltage                                                                           | V <sub>DC</sub>    | 20             | 30   | 40   | 50   | 60   | 80   | 90   | 100   | V     |
| Maximum average forward rectified current at T <sub>L</sub> =90°C                                     | I <sub>F(AV)</sub> | 3.0            |      |      |      |      |      |      |       | A     |
| Peak forward surge current 8.3ms single half-sine-wave                                                | I <sub>FSM</sub>   | 100.0          |      |      |      |      |      |      |       | A     |
| Maximum instantaneous forward voltage at I <sub>FM</sub> =3.0A (NOTE1)                                | V <sub>F</sub>     | 0.50           |      |      | 0.75 |      | 0.85 |      |       | V     |
| Maximum DC reverse current T <sub>J</sub> =25°C<br>at rated DC blocking voltage T <sub>J</sub> =125°C | I <sub>R</sub>     | 0.5<br>2010    |      |      |      |      |      |      |       | m A   |
| Maximum thermal resistance                                                                            | R <sub>θ JL</sub>  | 17.0           |      |      |      |      |      |      |       | °C/W  |
| Operating temperature range                                                                           | T <sub>J</sub>     | - 55 ---- +125 |      |      |      |      |      |      |       | °C    |
| Storage temperature range                                                                             | T <sub>STG</sub>   | - 55 ---- +150 |      |      |      |      |      |      |       | °C    |

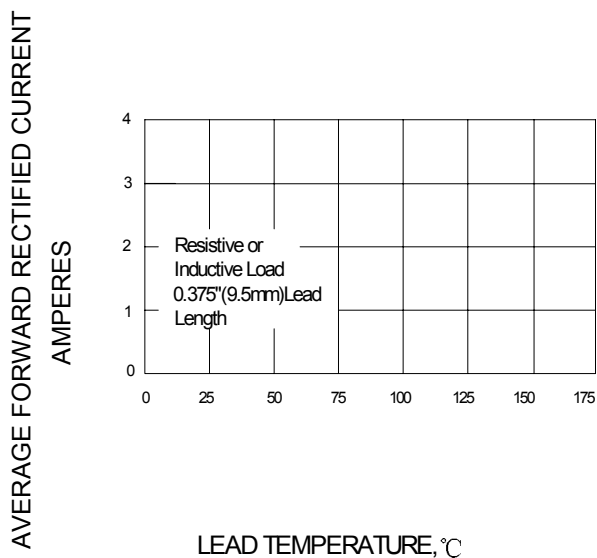
NOTE: 1.Pulse test: Pulse width 300us,duty cycle 1 %

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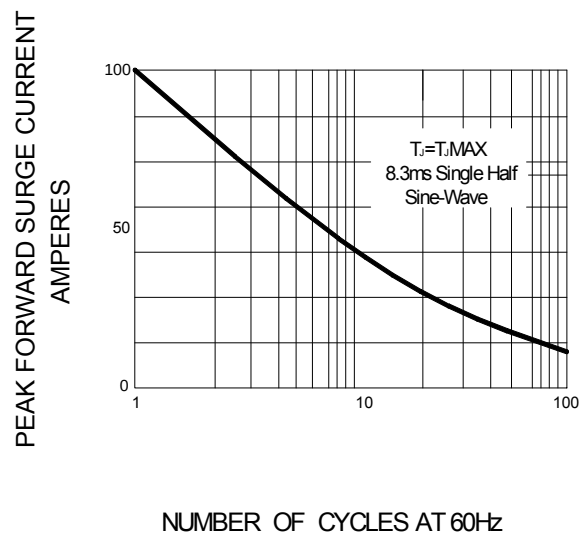
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## Ratings AND Characteristic Curves

**FIG.1 -- FORWARD DERATING CURVE**



**FIG.2 -- PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

