

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 - 100 V  
FORWARD CURRENT: 1.0 A

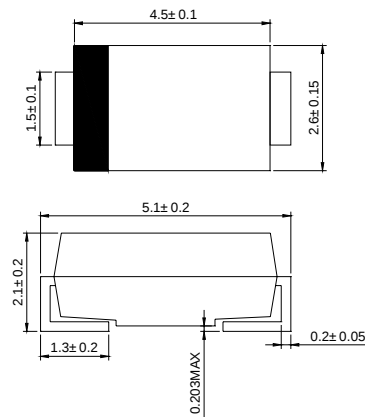
#### FEATURES

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

#### MECHANICAL DATA

- ◇ Case: SMA molded plastic body
- ◇ Polarity: Color band denotes cathode end
- ◇ Mounting position: ANY
- ◇ Weight: 0.002 ounces, 0.064 gram

#### (DO-214AC)SMA



Dimensions in millimeters

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

|                                                                                                     |                    | SS12          | SS13 | SS14 | SS15 | SS16 | SS18 | SS19 | SS110 | UNITS |
|-----------------------------------------------------------------------------------------------------|--------------------|---------------|------|------|------|------|------|------|-------|-------|
| Device marking code                                                                                 |                    | SS12          | SS13 | SS14 | SS15 | SS16 | SS18 | SS19 | SS110 |       |
| 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<br>T <sub>L</sub> =90℃                                 | I <sub>F(AV)</sub> | 1.0           |      |      |      |      |      |      |       | A     |
| Peak forward surge current 8.3ms single<br>half-sine-wave                                           | I <sub>FSM</sub>   | 40            |      |      |      |      |      |      |       | A     |
| Maximum instantaneous forward voltage<br>at I <sub>FM</sub> =1.0A (NOTE1)                           | V <sub>F</sub>     | 0.50          |      |      | 0.75 |      | 0.85 |      |       | V     |
| Maximum DC reverse current T <sub>J</sub> =25℃<br>at rated DC blocking voltage T <sub>J</sub> =125℃ | I <sub>R</sub>     | 0.2           |      |      |      |      | 0.5  |      |       | m A   |
|                                                                                                     |                    | 6.0           |      |      | 5.0  |      |      |      |       |       |
| Maximum thermal resistance                                                                          | R <sub>θ JL</sub>  | 28            |      |      |      |      |      |      |       | ℃/W   |
| Operating temperature range                                                                         | T <sub>J</sub>     | -55 ---- +125 |      |      |      |      |      |      |       | ℃     |
| Storage temperature range                                                                           | T <sub>STG</sub>   | -55 ---- +150 |      |      |      |      |      |      |       | ℃     |

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

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FIG.1 -- FORWARD DERATING CURVE

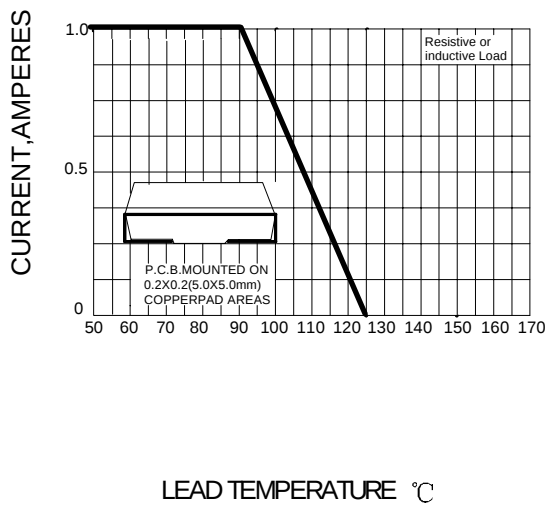


FIG.2- PEAK FORWARD SURGE CURRENT

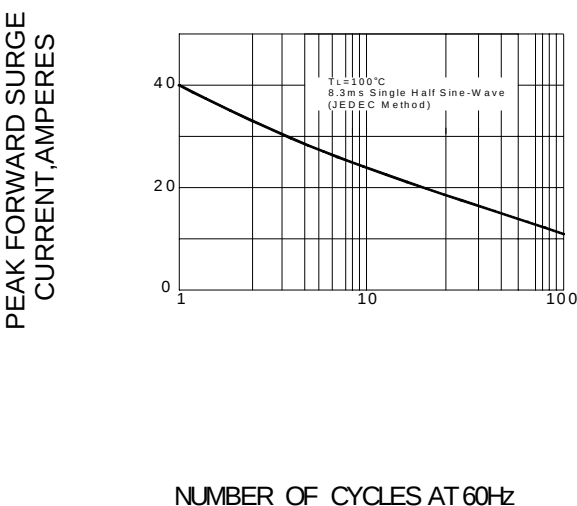


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

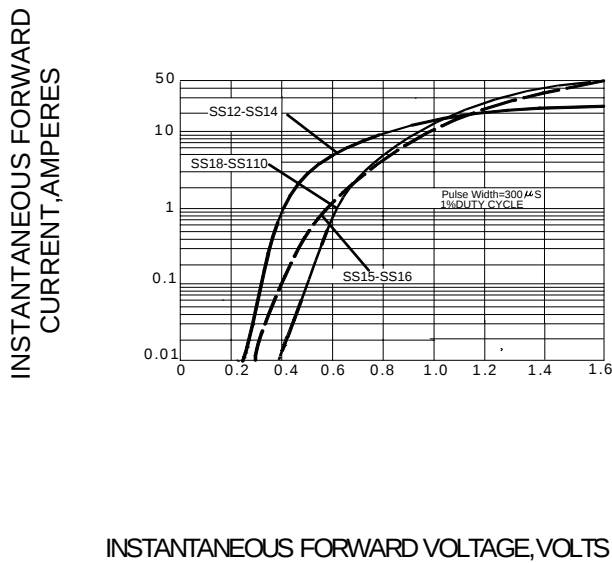


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

