

## SCHOTTKY DIODES

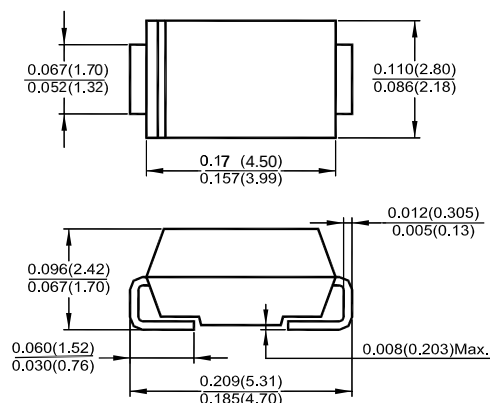
### FEATURES

Plastic package has Underwriters Laboratory  
Flammability Classification 94V-0  
For surface mounted applications  
Metal silicon junction, majority carrier conduction  
Built-in strain relief, ideal for automated placement  
Low power loss, high efficiency.  
High forward surge current capability

### MECHANICAL DATA

SMA (DO-214AC) molded plastic body  
leads solderable per MIL-STD-750, Method 2026  
color band denotes cathode end

### SS12---SS110



Dimensions in inches and (millimeters)  
DO-214AC (SMA)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter                                                                                                       | Symbols           | SS12          | SS13 | SS14 | SS15          | SS16 | SS18 | SS110 | Unit |
|-----------------------------------------------------------------------------------------------------------------|-------------------|---------------|------|------|---------------|------|------|-------|------|
| Maximum Repetitive Peak Reverse Voltage                                                                         | V <sub>RRM</sub>  | 20            | 30   | 40   | 50            | 60   | 80   | 100   | V    |
| Maximum RMS Voltage                                                                                             | V <sub>RMS</sub>  | 14            | 21   | 28   | 35            | 42   | 56   | 70    | V    |
| Maximum DC Blocking Voltage                                                                                     | V <sub>DC</sub>   | 20            | 30   | 40   | 50            | 60   | 80   | 100   | V    |
| Maximum Average Forward Rectified Current                                                                       | I <sub>(AV)</sub> | 1             |      |      |               |      |      |       | A    |
| Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC                       | I <sub>FSM</sub>  | 40            |      |      |               |      |      |       | A    |
| Maximum Instantaneous Forward Voltage at 1 A                                                                    | V <sub>F</sub>    | 0.55          |      |      | 0.75          |      | 0.85 |       | V    |
| Maximum DC Reverse Current<br>T <sub>A</sub> = 25 °C<br>at Rated DC Blocking Voltage<br>T <sub>A</sub> = 100 °C | I <sub>R</sub>    | 0.5           |      |      |               |      |      |       | mA   |
|                                                                                                                 |                   | 6             |      |      | 5             |      |      |       |      |
| Typical Junction Capacitance <sup>1)</sup>                                                                      | C <sub>J</sub>    | 110           |      |      | 90            |      |      |       | pF   |
| Typical Thermal Resistance <sup>2)</sup>                                                                        | R <sub>θJA</sub>  | 88            |      |      |               |      |      |       | °C/W |
| Operating Junction Temperature Range                                                                            | T <sub>J</sub>    | - 65 to + 125 |      |      | - 65 to + 150 |      |      |       | °C   |
| Storage Temperature Range                                                                                       | T <sub>S</sub>    | - 65 to + 150 |      |      |               |      |      |       | °C   |

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.

2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

## SS12---SS110 Typical Characteristics

FIG.1-FORWARD CURRENT DERATING CURVE

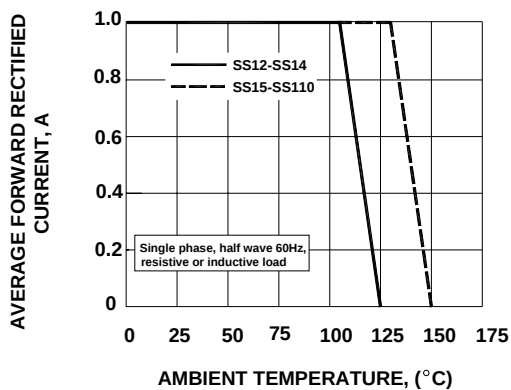


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

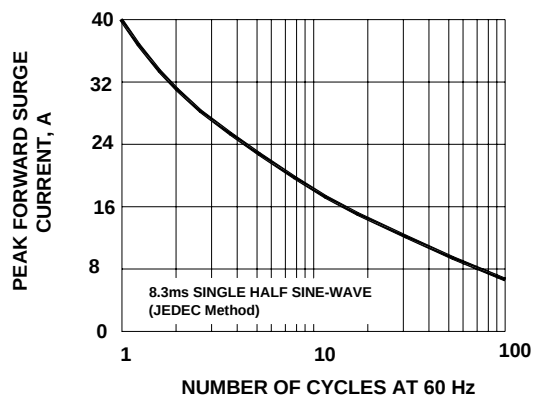


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

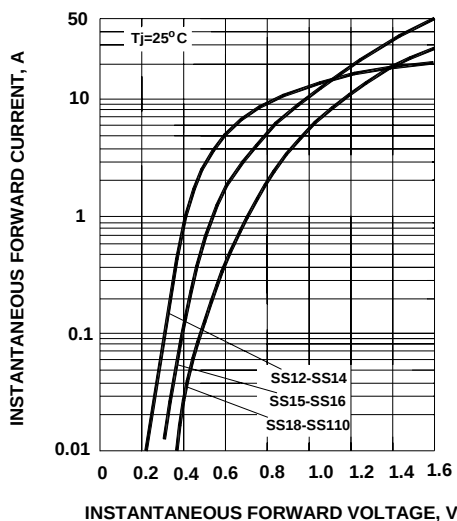


Fig.4- TYPICAL REVERSE CHARACTERISTICS

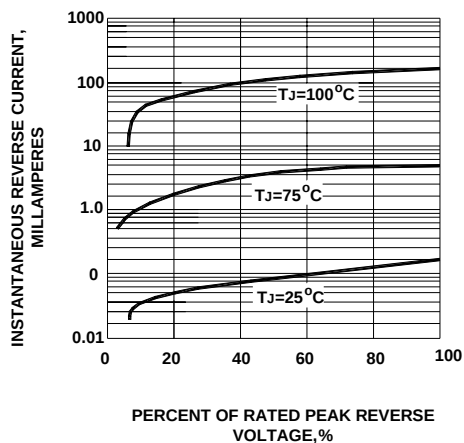


Fig.5- TYPICAL JUNCTION CAPACITANCE

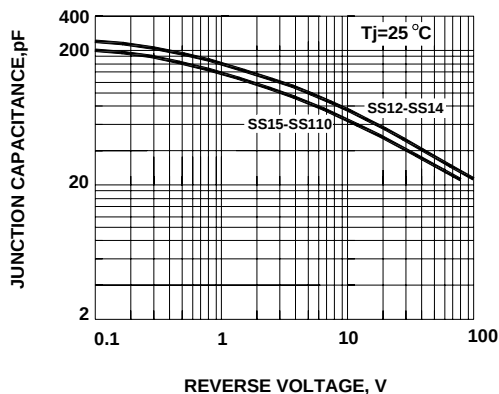


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

