

# DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SS12 **THRU SS110** 

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER VOLTAGE RANGE - 20 to 100 Volts CURRENT - 1.0 Ampere

## **FEATURES**

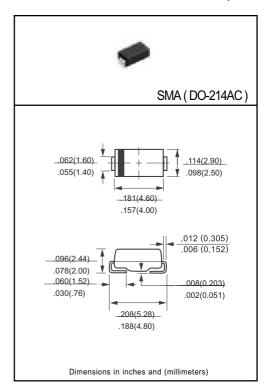
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction

#### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \*Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any \* Weight: 0.064 gram

# 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%.



|   |                           | SYMBOL | SS12           | SS14 | SS15 | SS16  | SS18 | SS110 | UNITS |
|---|---------------------------|--------|----------------|------|------|-------|------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage  |                           | VRRM   | 20             | 40   | 50   | 60    | 80   | 100   | Volts |
| Maximum RMS Voltage   |                           | VRMS   | 14             | 28   | 35   | 42    | 56   | 70    | Volts |
| Maximum DC Blocking Voltage   |                           | VDC    | 20             | 40   | 50   | 60    | 80   | 100   | Volts |
| Maximum Average Forward Rectified Current at Derating Lead Temperature                            |                           | lo     | 1.0            |      |      |       |      |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) |                           | IFSM   | 30             |      |      |       |      | Amps  |       |
| Maximum Instantaneous Forward Voltage at 1.0A DC  |                           | VF     | 0.55 0.70 0.85 |      | 85   | Volts |      |       |       |
| Maximum DC Reverse Current at Rated DC Blocking Voltage   | @TA = 25°C<br>@TA = 100°C | lR     |                |      |      | .0    |      |       | mAmps |
| Typical Thermal Resistance (Note 1)   |                           | RθJA   | 88             |      |      |       |      | °C/W  |       |
| Typical Junction Capacitance (Note 2)   |                           | CJ     | 110            |      |      |       |      | pF    |       |
| Operating Temperature Range   |                           | TJ     | -65 to + 125   |      |      |       |      |       | ٥C    |
| Storage Temperature Range   |                           | Tstg   | -65 to + 150   |      |      |       |      | °C    |       |

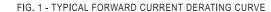
- NOTES: 1. Thermal Resistance (Junction to Ambient).
  - 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
  - 3. P.C.B Mounted with 0.2X0.2\*(5.0X5.0mm <sup>2</sup>) copper pad area.

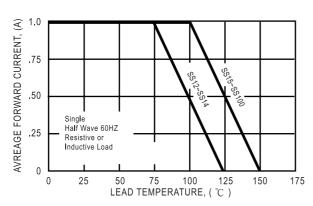




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## RATING AND CHARACTERISTIC CURVES (SS12 THRU SS110)





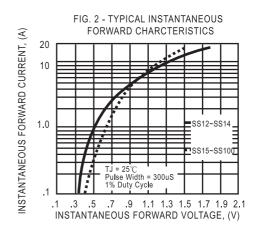
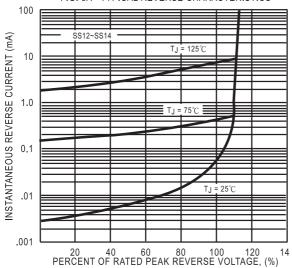


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS



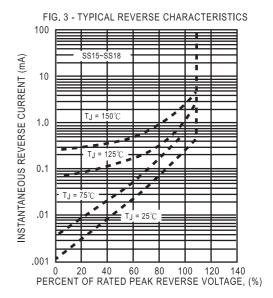


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

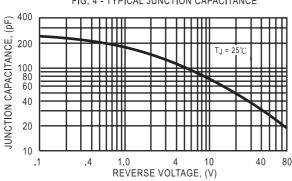


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

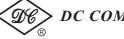
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8.3ms Single Half Sine-Wave JEDEC Method

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1 2 4 6 8 10 20 40 80 100 NUMBER OF CYCLES AT 60Hz



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**EXIT**