



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

SS12  
THRU  
SS18

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
VOLTAGE RANGE - 20 to 80 Volts CURRENT - 1.0 Ampere

**FEATURES**

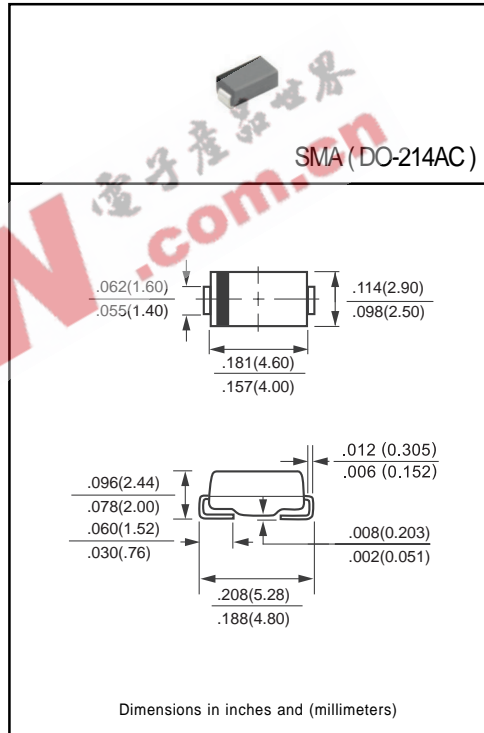
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction

**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         | SS13 | SS14 | SS15 | SS16 | SS18 | UNITS |
|---|--------|--------------|------|------|------|------|------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 20           | 30   | 40   | 50   | 60   | 80   | Volts |
| Maximum RMS Voltage   | VRMS   | 14           | 21   | 28   | 35   | 42   | 56   | Volts |
| Maximum DC Blocking Voltage   | VDC    | 20           | 30   | 40   | 50   | 60   | 80   | Volts |
| Maximum Average Forward Rectified Current at Derating Lead Temperature                            | IO     | 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 |      | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage   | IR     | @TA = 25°C   |      |      |      |      |      | mAmps |
|   |        | 1.0          |      |      |      |      |      |       |
| Typical Thermal Resistance (Note 1)   | RθJA   | @TA = 100°C  |      |      |      |      |      | °C/W  |
|   |        | 20           |      |      |      |      |      |       |
| Typical Junction Capacitance (Note 2)   | CJ     | 88           |      |      |      |      |      | pF    |
| Operating Temperature Range   | TJ     | 110          |      |      |      |      |      | °C    |
| Storage Temperature Range   | TSTG   | -65 to + 125 |      |      |      |      |      | °C    |
|   |        | -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.

RATING AND CHARACTERISTIC CURVES ( SS12 THRU SS18 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

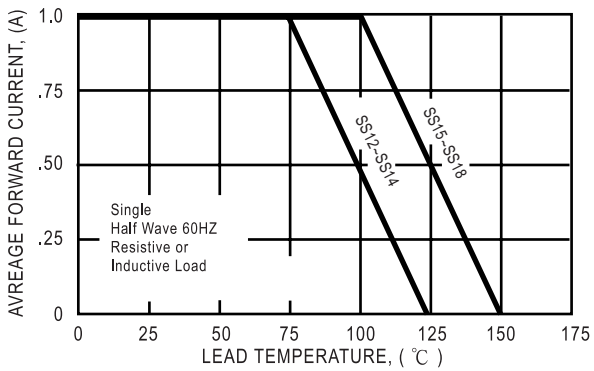


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

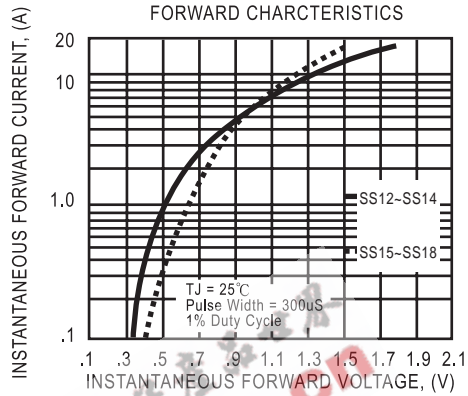


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

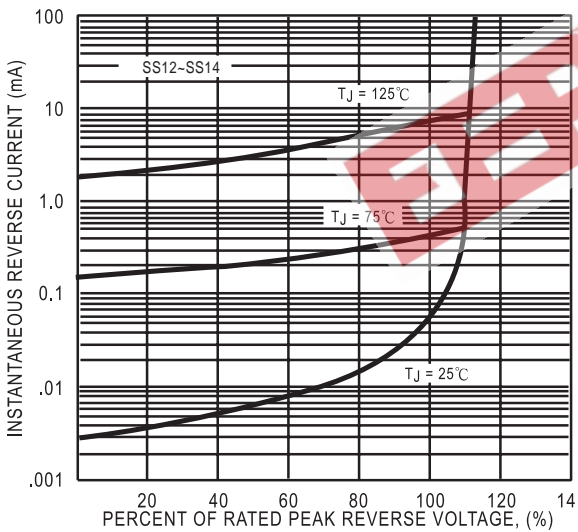


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

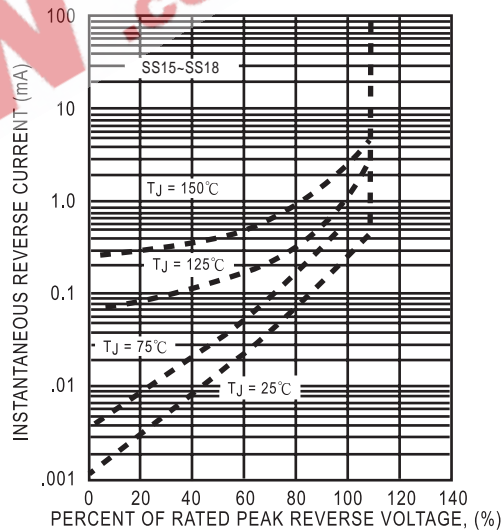


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

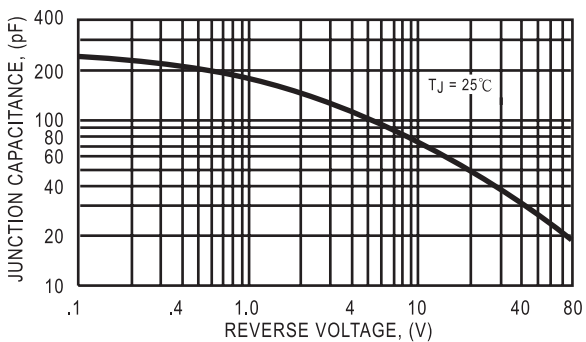
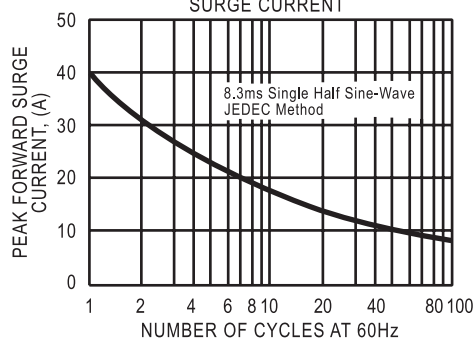


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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