



**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**

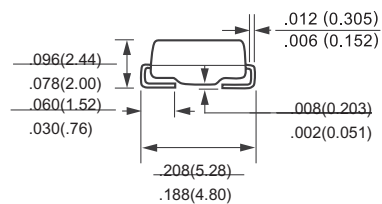
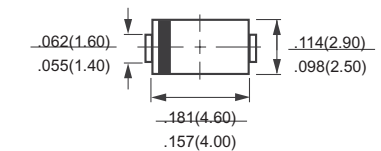
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.064 gram

**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%.



SMA (DO-214AC)



Dimensions in inches and (millimeters)

|  | SYMBOL           | SS12         | SS14 | SS15 | SS16 | SS18 | SS110 | UNITS |
|--|------------------|--------------|------|------|------|------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub> | 20           | 40   | 50   | 60   | 80   | 100   | Volts |
| Maximum RMS Voltage  | V <sub>RMS</sub> | 14           | 28   | 35   | 42   | 56   | 70    | Volts |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>  | 20           | 40   | 50   | 60   | 80   | 100   | Volts |
| Maximum Average Forward Rectified Current<br>at Derating Lead Temperature                            | I <sub>O</sub>   | 1.0          |      |      |      |      |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC Method) | I <sub>FSM</sub> | 30           |      |      |      |      |       | Amps  |
| Maximum Instantaneous Forward Voltage at 1.0A DC   | V <sub>F</sub>   | 0.55         |      | 0.70 |      | 0.85 |       | Volts |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage   | I <sub>R</sub>   | 1.0          |      |      |      |      |       | mAmps |
|  |                  | 20           |      |      |      |      |       |       |
| Typical Thermal Resistance (Note 1)  | R <sub>θJA</sub> | 88           |      |      |      |      |       | °C/W  |
| Typical Junction Capacitance (Note 2)  | C <sub>J</sub>   | 110          |      |      |      |      |       | pF    |
| Operating Temperature Range  | T <sub>J</sub>   | -65 to + 125 |      |      |      |      |       | °C    |
| Storage Temperature Range  | T <sub>STG</sub> | -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.



NEXT



EXIT

RATING AND CHARACTERISTIC CURVES ( SS12 THRU SS110 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

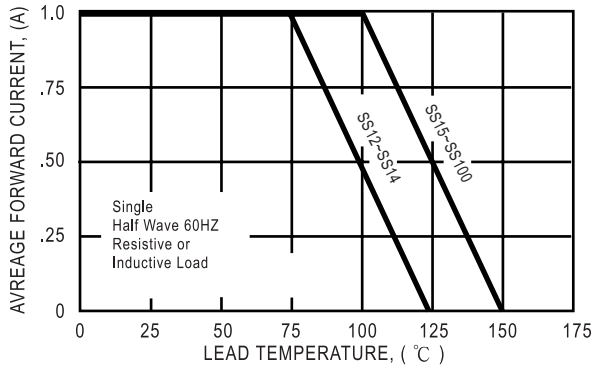


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

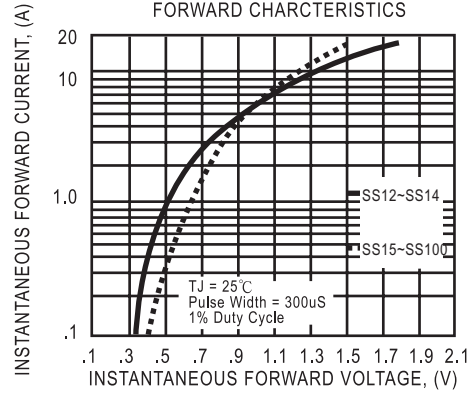


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

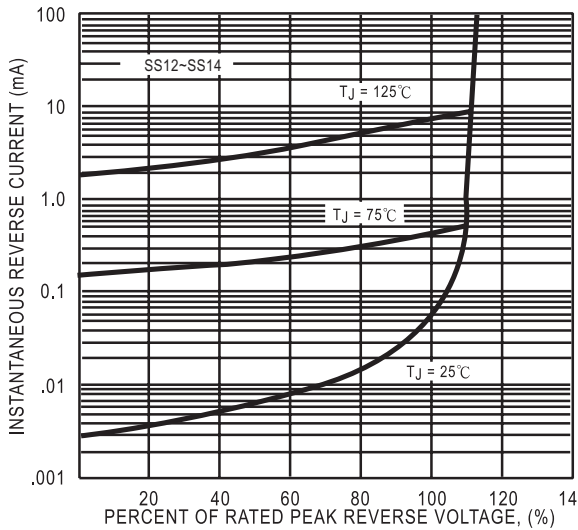


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

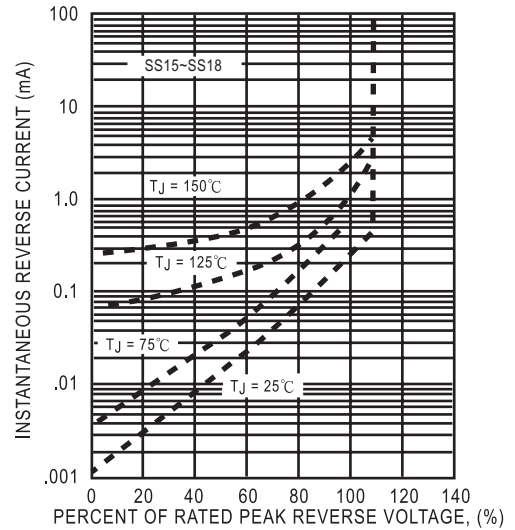


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

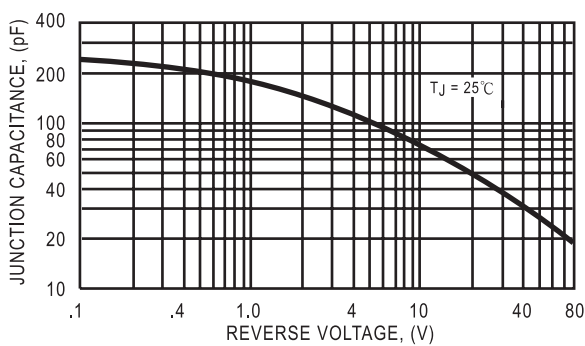


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

