

# SS4001 THRU SS4007

# GW

## 1.0 AMP SURFACE MOUNT SILICON RECTIFIERS

### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* High surge current capability

### MECHANICAL DATA

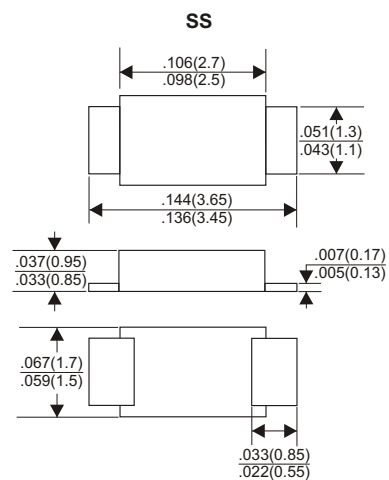
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

1.0 Ampere



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                           | SS4001     | SS4002 | SS4003 | SS4004 | SS4005 | SS4006 | SS4007 | UNITS         |
|-------------------------------------------------------------------------------------------------------|------------|--------|--------|--------|--------|--------|--------|---------------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V             |
| Maximum RMS Voltage                                                                                   | 35         | 70     | 140    | 280    | 420    | 560    | 700    | V             |
| Maximum DC Blocking Voltage                                                                           | 50         | 100    | 200    | 400    | 600    | 800    | 1000   | V             |
| Maximum Average Forward Rectified Current<br>at $T_L=75^\circ\text{C}$                                | 1.0        |        |        |        |        |        |        | A             |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 30         |        |        |        |        |        |        | A             |
| Maximum Instantaneous Forward Voltage at 1.0A                                                         | 1.1        |        |        |        |        |        |        | V             |
| Maximum DC Reverse Current $T_a=25^\circ\text{C}$                                                     | 5.0        |        |        |        |        |        |        | $\mu\text{A}$ |
| at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$                                                  | 50         |        |        |        |        |        |        | $\mu\text{A}$ |
| Typical Junction Capacitance (Note 1)                                                                 | 15         |        |        |        |        |        |        | pF            |
| Typical Thermal Resistance R <sub>JL</sub> (Note 2)                                                   | 30         |        |        |        |        |        |        | °C/W          |
| Operating and Storage Temperature Range $T_J, T_{STG}$                                                | -65 — +150 |        |        |        |        |        |        | °C            |
| Marking Code                                                                                          | R01        | R02    | R03    | R04    | R05    | R06    | R07    |               |

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Lead.

## RATING AND CHARACTERISTIC CURVES (SS4001 THRU SS4007)

FIG.1-TYPICAL FORWARD  
CHARACTERISTICS

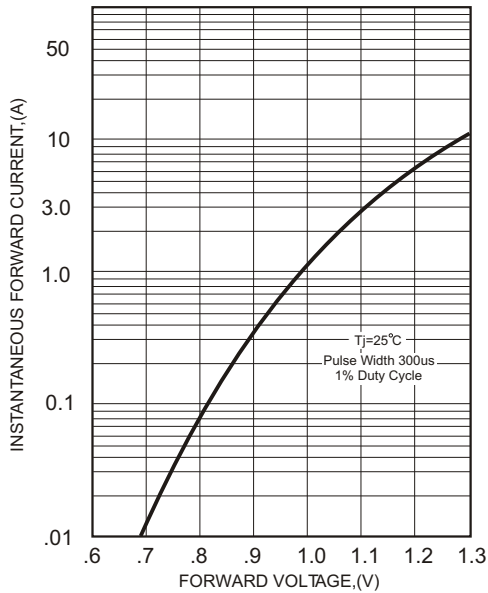


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

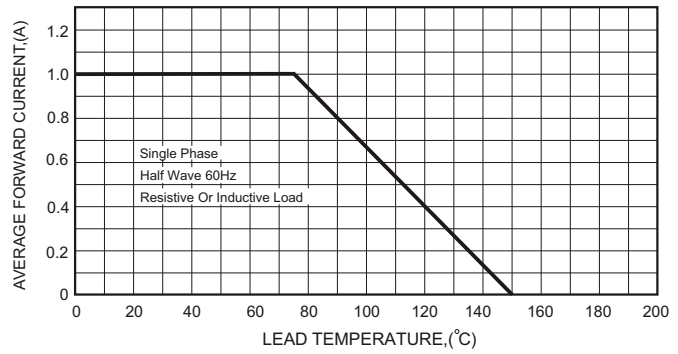


FIG.4-MAXIMUM NON-REPETITIVE FORWARD  
SURGE CURRENT

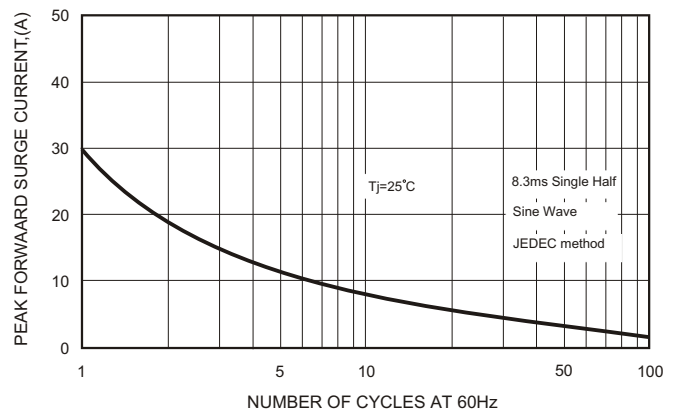


FIG.3 - TYPICAL REVERSE  
CHARACTERISTICS

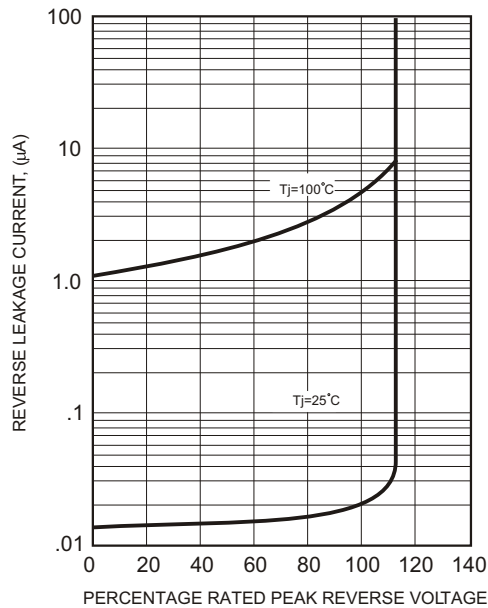


FIG.5-TYPICAL JUNCTION CAPACITANCE

