



# DATA SHEET

SEMICONDUCTOR

SS22 THRU SS220

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

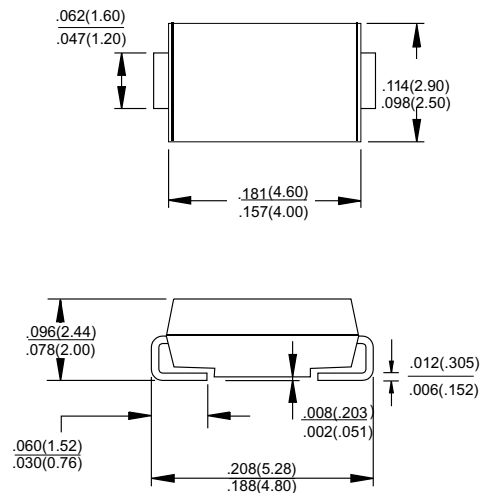


**VOLTAGE- 20 to 200 Volts CURRENT- 2.0 Amperes**

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- High current capacity ,low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering guaranteed: 260°C /10 seconds at terminals
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

SMA/DO-214AC Unit:inch(mm)



## MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Standard packaging: 12mm tape (EIA-481)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Resistive or inductive load.

|   | SYMBOLS      | SS22        | SS23 | SS24 | SS25 | SS26 | SS28 | SS29 | SS210 | SS215 | SS220 | UNITS |
|---|--------------|-------------|------|------|------|------|------|------|-------|-------|-------|-------|
| Marking Code  |              | SS22        | SS23 | SS24 | SS25 | SS26 | SS28 | SS29 | SS210 | SS215 | SS220 |       |
| <b>Maximum Recurrent Peak Reverse Voltage</b>   | VRRM         | 20          | 30   | 40   | 50   | 60   | 80   | 90   | 100   | 150   | 200   | V     |
| <b>Maximum RMS Voltage</b>  | VRMS         | 14          | 21   | 28   | 35   | 42   | 56   | 64   | 71    | 105   | 140   | V     |
| <b>Maximum DC Blocking Voltage</b>  | VDC          | 20          | 30   | 40   | 50   | 60   | 80   | 90   | 100   | 150   | 200   | V     |
| <b>Maximum Average Forward Rectified Current at TL (See figure 1)</b>                                   | I(AV)        | 2.0         |      |      |      |      |      |      |       |       |       | A     |
| <b>Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)</b> | IFSM         | 50.0        |      |      |      |      |      |      |       |       |       | A     |
| <b>Maximum Instantaneous Forward Voltage at 2.0A (Note 1)</b>   | VF           | 0.50        |      |      | 0.70 |      |      | 0.85 |       |       |       | V     |
| <b>Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C</b>               | IR           | 0.5         |      |      |      |      | 10.0 |      |       |       |       | mA    |
| <b>Maximum Thermal Resistance(Note 2)</b>   | RθJL<br>RθJA | 20.0        |      |      |      |      | 80.0 |      |       |       |       | °C/W  |
| <b>Operating Temperature Range</b>  | TJ           | -55 to +150 |      |      |      |      |      |      |       |       |       | °C    |
| <b>Storage Temperature Range</b>  | TSTG         | -55 to +150 |      |      |      |      |      |      |       |       |       | °C    |

### NOTES:

- Pulse Test with PW =300µsec, 2% Duty Cycle.
- Mounted on P.C. Board with 5.0mm<sup>2</sup> (.013mm thick) copper pad areas.

# DEVICE CHARACTERISTICS

## SS22 THRU SS220

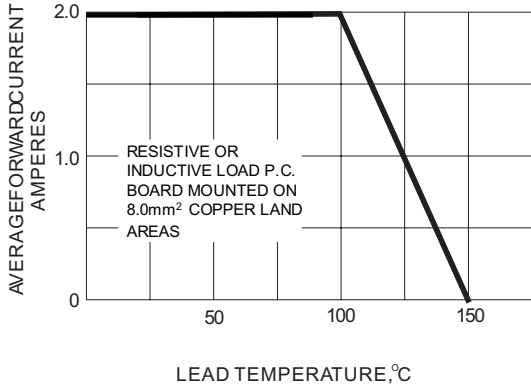


Fig. 1-FORWARD CURRENT DERATING CURVE

Fig. 1-FORWARD CURRENT DERATING CURVE

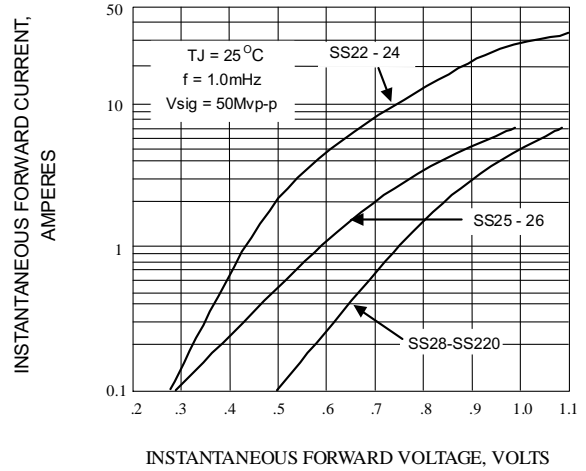


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

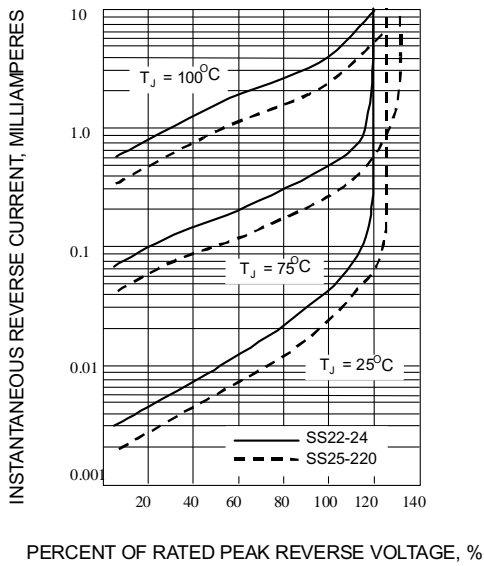


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

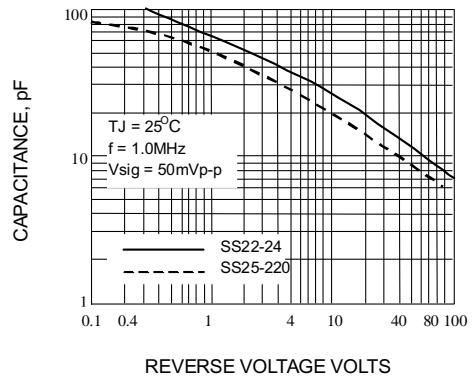


Fig. 4-TYPICAL JUNCTION CAPACITANCE

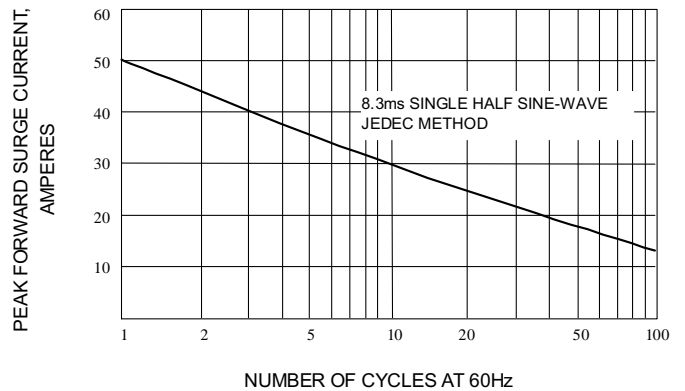


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT