



SS52 THRU SS520

**SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIERS**

**REVERSE VOLTAGE - 20 to 200 Volts
FORWARD CURRENT - 5.0 Amperes**

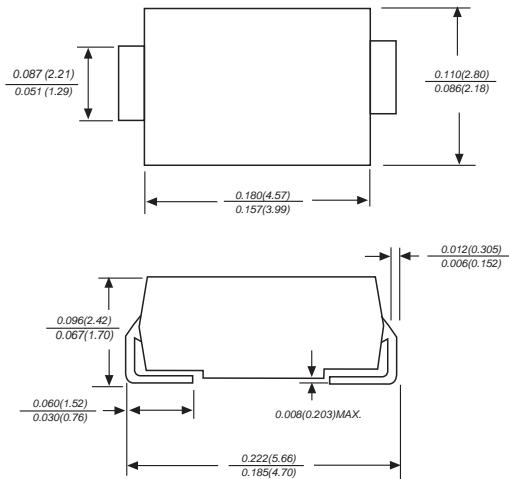
FEATURES

- Metal-Semiconductor junction with gard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low vlotage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: Molded Plastic
- Polarity:Color band denotes cathode
- Weight :0.058 grams

DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| CHARACTERISTICS | SYMBOL | SS52 | SS53 | SS54 | SS55 | SS56 | SS58 | SS510 | SS515 | SS520 | UNIT |
|---|-------------------|-------------|------|------|------|------|------|-------|-------|-------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths | I _(AV) | 5.0 | | | | | | | | | A |
| Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | I _{FSM} | 100 | | | | | | | | | A |
| Maximum Forward Voltage at 5.0A DC | V _F | 0.55 | | | 0.7 | | 0.85 | | 0.95 | | V |
| Maximum DC Reverse Current @T _J =25°C at Rated DC Bolcking Voltage @T _J =100°C | I _R | 0.2 | | | 1.0 | | | | 50 | | mA |
| Typical Junction Capacitance (Note1) | C _J | 500 | | | 350 | | | | | pF | |
| Typical Thermal Resistance (Note2) | R _{θJA} | 15 | | | 10 | | | | | °C/W | |
| Operating Temperature Range | T _J | -55 to +150 | | | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | | | °C |

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction to ambient,



RATING AND CHARACTERISTIC CURVES SS52 thru SS520

FIG. 1 – FORWARD CURRENT DERATING CURVE

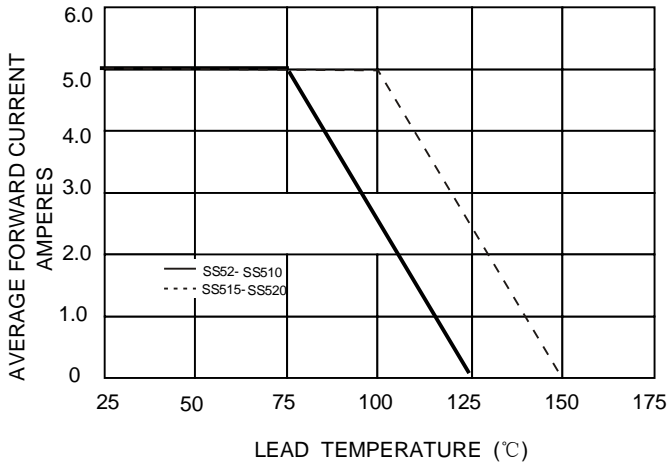


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

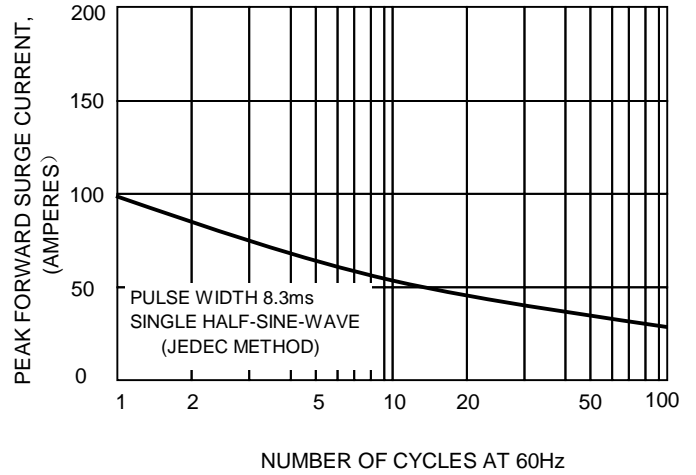


FIG.3 – TYPICAL JUNCTION CAPACITANCE

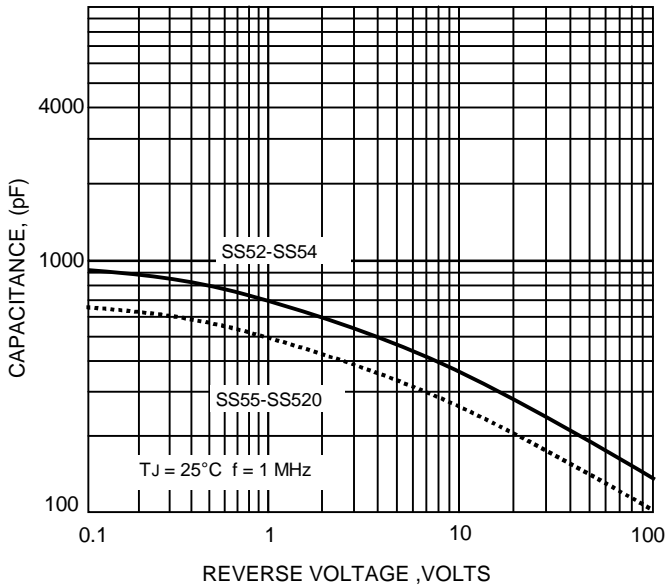


FIG.4-TYPICAL FORWARD CHARACTERISTICS

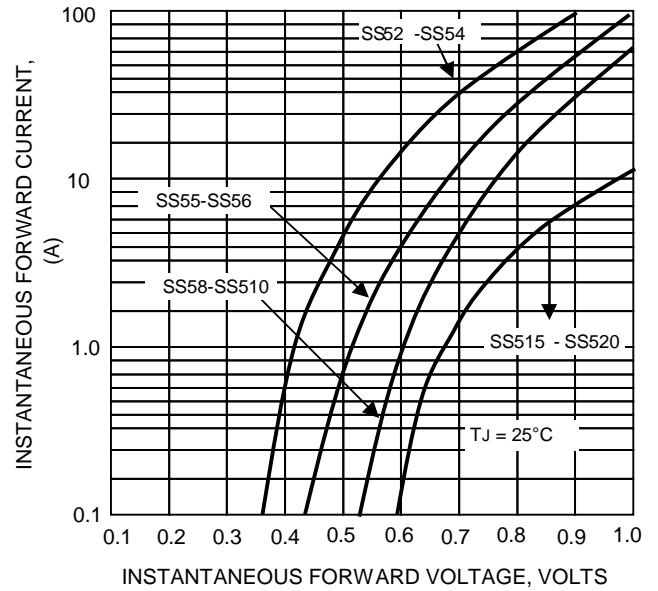


FIG.2-TYPICAL REVER CHARACTERISTICS

