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| <p>SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS</p> <p>FEATURES</p> <ul style="list-style-type: none"> ● 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 <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ●Case: Molded Plastic ●Polarity:Color band denotes cathode ●Weight: 0.007 ounces,0.21 grams | <p>REVERSE VOLTAGE - 20 to 100 Volts FORWARD CURRENT - 5.0 Amperes</p> <p style="text-align: center;">SMC</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p> |
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| CHARACTERISTICS | SYMBOL | SS52 | SS53 | SS54 | SS55 | SS56 | SS58 | SS510 | UNIT | |
|---|-------------------|-------------|------|------|------|------|------|-------|------|----|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V | |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V | |
| Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @T _L =95 °C | I _(AV) | 5.0 | | | | | | | A | |
| Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | I _{FSM} | 150 | | | | | | | A | |
| Maximum Forward Voltage at 5.0A DC | V _F | 0.45 | 0.55 | 0.6 | 0.7 | | 0.85 | | V | |
| Maximum DC Reverse Current @T _J =25°C at Rated DC Bolcking Voltage @T _J =100°C | I _R | 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,

FIG. 1 – FORWARD CURRENT DERATING CURVE

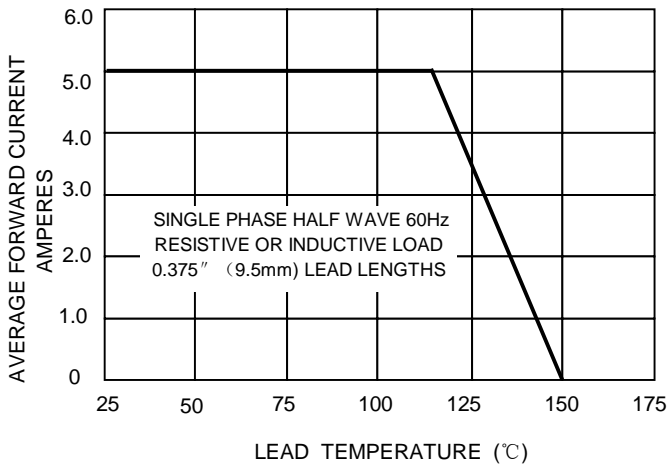


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

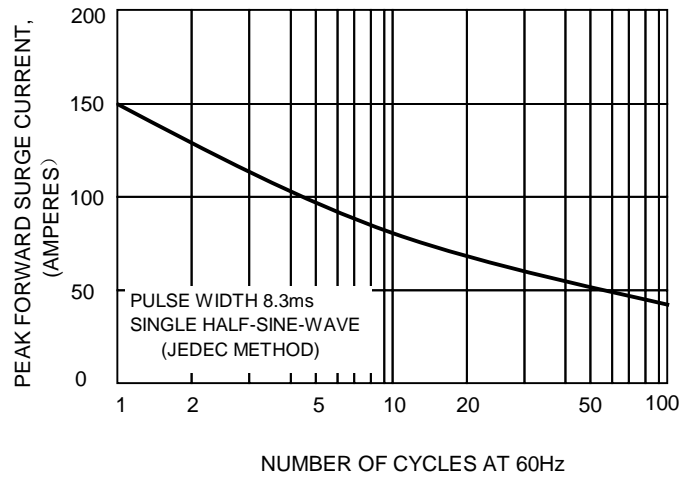


FIG.3 – TYPICAL JUNCTION CAPACITANCE

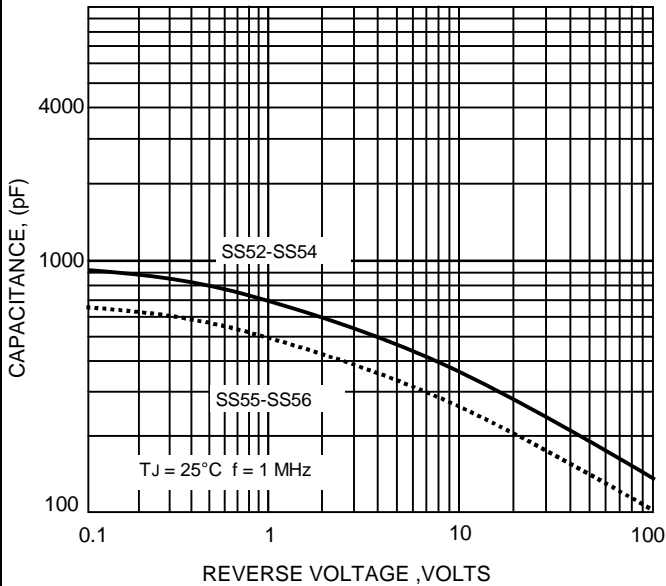


FIG.4-TYPICAL FORWARD CHARACTERISTICS

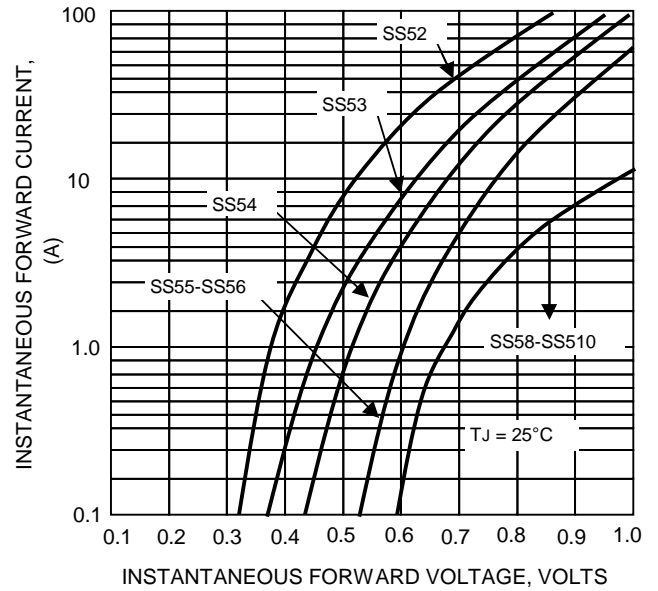


FIG.2-TYPICAL REVER CHARACTERISTICS

