

SCHOTTKY BARRIER RECTIFIER

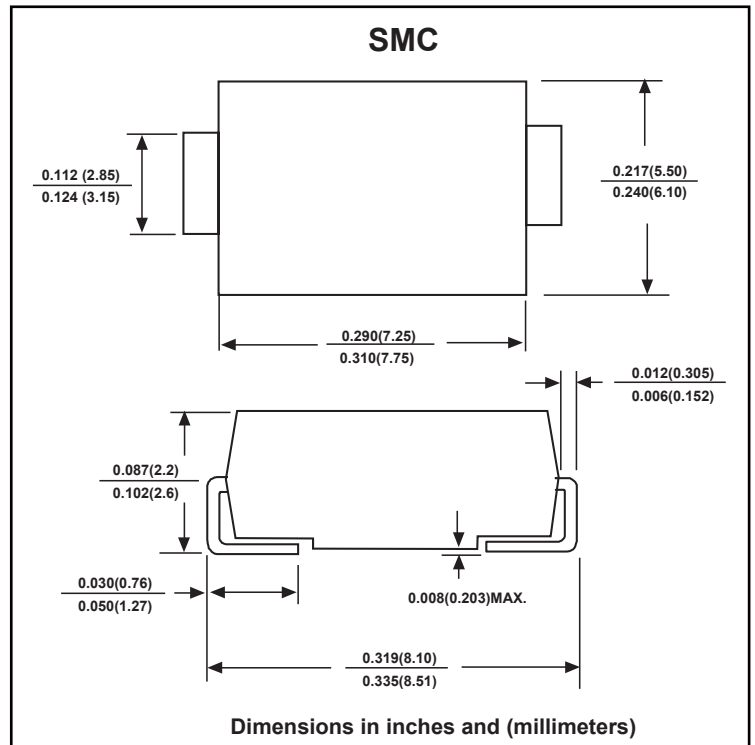
VOLTAGE RANGE: 20--- 200V CURRENT: 5.0 A

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing
- Metal silicon junction ,majority carrier conduction
- Built-in strain relief
- For surface mounted applications
- Low power loss ,high efficiency,High surge capability
- High current capability ,Low forward voltage drop
- For use in low voltage ,high frequency inverters, free wheeling , and polarity protection applications
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/Ec and WEEE 2002/96/EC

MECHANICAL DATA

- Case: SMC molded plastic body
- Terminals:Lead solderable per MIL-STD-750,method 2026
- Polarity:Color band denotes cathode end



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.

For capacitive load,derate by 20%.

| | Symbols | SS 52 | SS 53 | SS 54 | SS 55 | SS 56 | SS 58 | SS 510 | SS 515 | SS 520 | Units | |
|---|-------------------|-------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts | |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 57 | 71 | 105 | 140 | Volts | |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts | |
| Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1) | I _(AV) | 5.0 | | | | | | | | | Amps | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T _J) | I _{FSM} | 150.0 | | | | | | | | | Amps | |
| Maximum instantaneous forward voltage at 5.0 A(Note 1) | V _F | 0.55 | | | 0.70 | | 0.85 | | 0.90 | | 0.95 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | I _R | 0.2 | | | | | | | | | | mA |
| | | 50 | | | | | 10 | | | | | |
| Typical junction capacitance(Note 3) | C _J | 500 | | | | | 400 | | | | | pF |
| Typical thermal resistance (Note 2) | R _{θJA} | 55.0 | | | | | | | | | | °C/W |
| | R _{θJL} | 17.0 | | | | | | | | | | |
| Operating junction temperature range | T _J | -65 to+ 150 | | | | | | | | | | °C |
| Storage temperature range | T _{STG} | -65 to+ 150 | | | | | | | | | | °C |

Notes: 1. Pulse test: 300 μs pulse width,1% duty cycle

2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas

3. Measured at 1MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

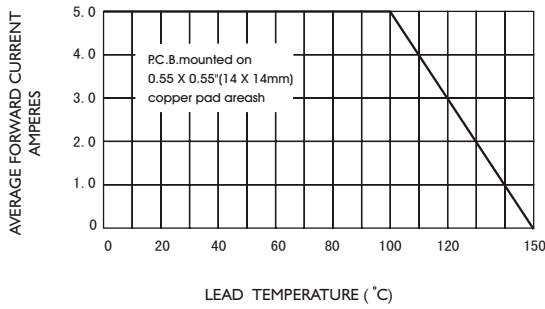


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

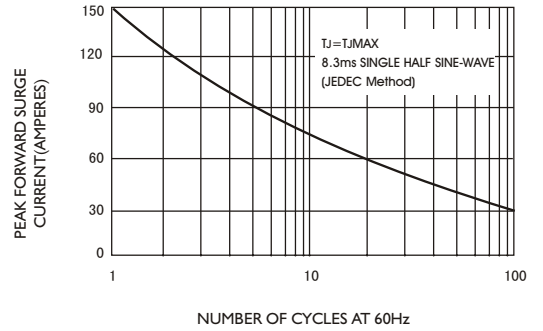


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

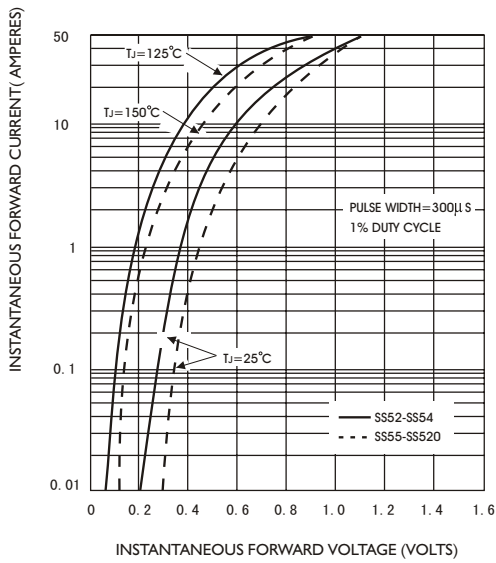


FIG.4-TYPICAL REVERSE CHARACTERISTICS

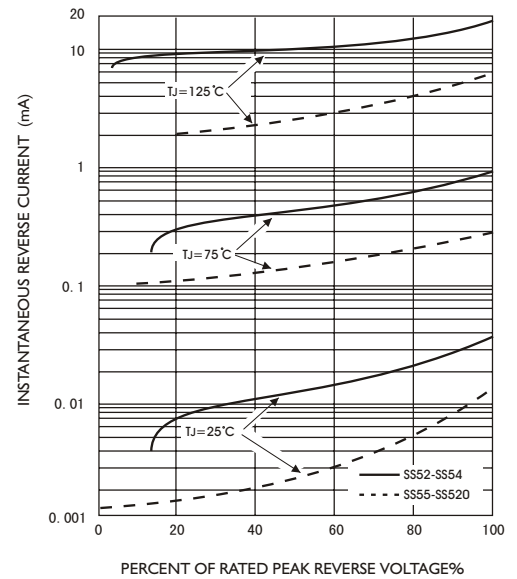


FIG.5-TYPICAL JUNCTION CAPACITANCE

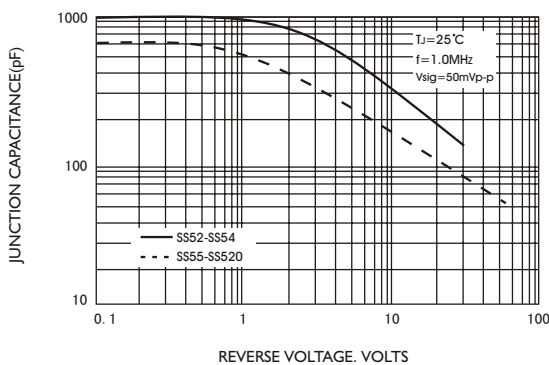


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

