



SCHOTTKY BARRIER RECTIFIER

SR320 - SR3200

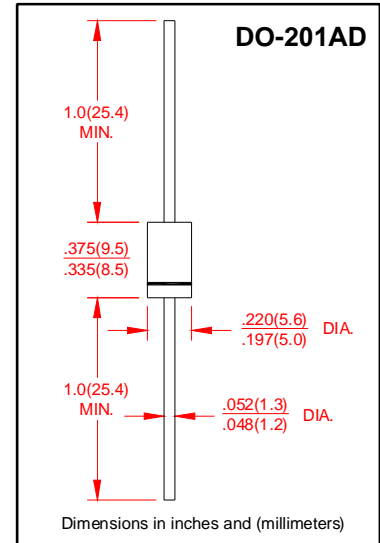
REVERSE VOLTAGE - 20 to 200 V
FORWARD CURRENT - 3 A

FEATURES

- Plastic package has underwriters laboratory flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- 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: JEDEC DO-201 AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-SRD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce, 1.15 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| | SYMBOLS | SR320 | SR330 | SR340 | SR350 | SR360 | SR380 | SR3100 | SR3150 | SR3200 | Units |
|--|------------|-------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage | VRRM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | VRMS | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | VDC | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length | I(AV) | 3.0 | | | | | | | | | Amp |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) | IFSM | 80.0 | | | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 3.0A | VF | 0.55 | | | 0.70 | | 0.85 | | 0.90 | 0.95 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage (Note 1) | TA = 25°C | 0.2 | | | | | | | | | mA |
| | TA = 100°C | 20 | | | 10 | | | | | | |
| Typical Junction Capacitance (NOTE 3) | CJ | 250 | | | 160 | | | | | | pF |
| Typical Thermal Resistance (NOTE 2) | RθJA | 40.0 | | | | | | | | | °C/W |
| | RθJI | 10.0 | | | | | | | | | |
| Operating junction Temperature Range | TJ | -65 to +150 | | | | | | | | | °C |
| Storage Temperature Range | TSTG | -65 to +150 | | | | | | | | | °C |

Notes:

1. Pulse test :300 us pulse width, 1% duty cycle
2. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.5" (12.7mm) lead length with 2.5*2.5"(63.5*63.5mm) copper pads
3. Measured at 1MHz and reverse voltage of 4.0 volts



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RATING AND CHARACTERISTIC CURVES SR320 - SR3200

FIG.1-FORWARD CURRENT DERATING CURVE

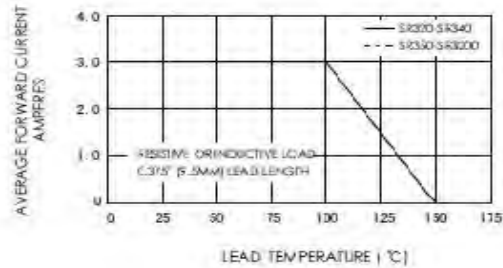


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

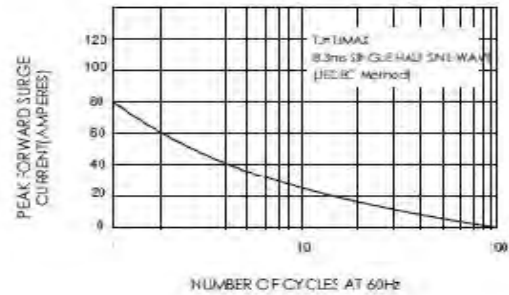


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

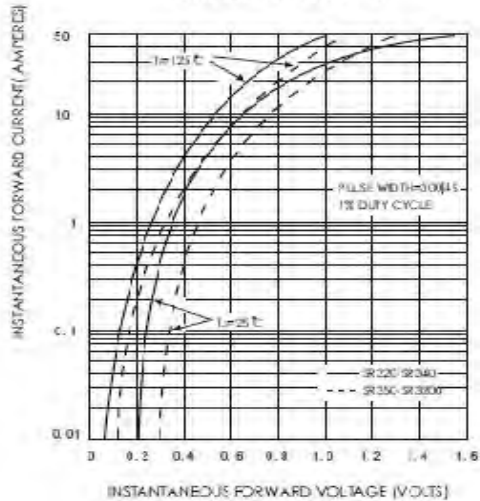


FIG.4-TYPICAL REVERSE CHARACTERISTICS

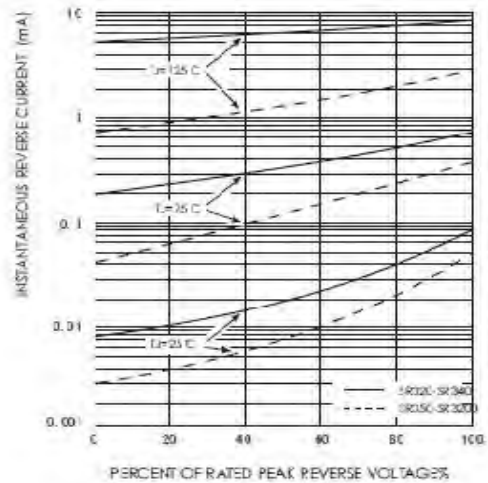


FIG.5-TYPICAL JUNCTION CAPACITANCE

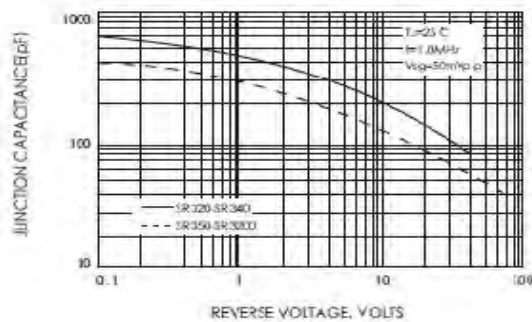


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

