

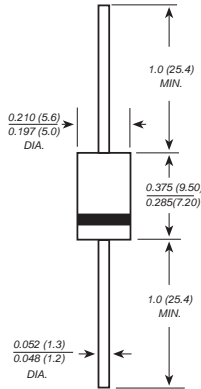


# SR520 THRU SR5200

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current -5.0 Amperes

### DO-201AD



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-201AD molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.04 ounce, 1.10 grams

### 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%.

| MDD Catalog Number  | SYMBOLS         | SR 520      | SR 530 | SR 540 | SR 550 | SR 560 | SR 570      | SR 580 | SR 590 | SR 5A0 | SR 5150 | SR 5200 | UNITS |    |
|---|-----------------|-------------|--------|--------|--------|--------|-------------|--------|--------|--------|---------|---------|-------|----|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 20          | 30     | 40     | 50     | 60     | 70          | 80     | 90     | 100    | 150     | 200     | VOLTS |    |
| Maximum RMS voltage   | $V_{RMS}$       | 14          | 21     | 28     | 35     | 42     | 49          | 56     | 63     | 70     | 105     | 140     | VOLTS |    |
| Maximum DC blocking voltage   | $V_{DC}$        | 20          | 30     | 40     | 50     | 60     | 70          | 80     | 90     | 100    | 150     | 200     | VOLTS |    |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length (see fig.1)                             | $I_{(AV)}$      | 5.0         |        |        |        |        |             |        |        |        |         |         | Amps  |    |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)          | $I_{FSM}$       | 150.0       |        |        |        |        |             |        |        |        |         |         | Amps  |    |
| Maximum instantaneous forward voltage at 5.0A   | $V_F$           | 0.55        |        | 0.70   |        | 0.85   |             | 0.95   |        |        |         |         | Volts |    |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>$T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ | $I_R$           | 0.5         |        |        |        |        |             |        |        | 0.2    |         | 2.0     |       | mA |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 500         |        |        |        | 400    |             |        |        |        |         |         |       | pF |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 25.0        |        |        |        |        |             |        |        |        |         |         | °C/W  |    |
| Operating junction temperature range  | $T_J$           | -50 to +125 |        |        |        |        | -50 to +150 |        |        |        |         |         |       | °C |
| Storage temperature range   | $T_{STG}$       | -50 to +150 |        |        |        |        |             |        |        |        |         |         | °C    |    |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

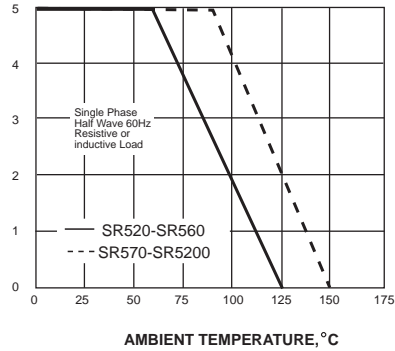
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



# RATINGS AND CHARACTERISTIC CURVES SR520 THRU SR5200

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,  
AMPERES

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

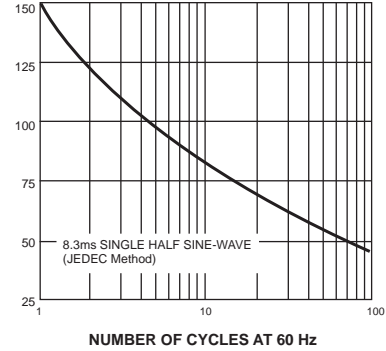
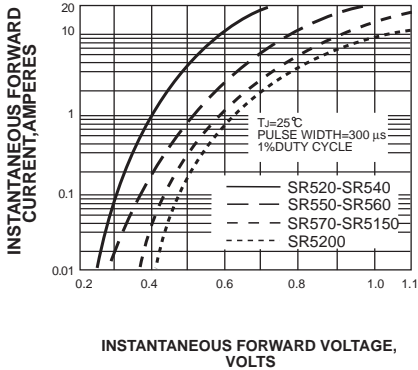


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

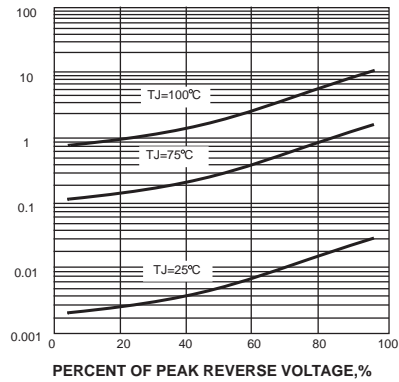
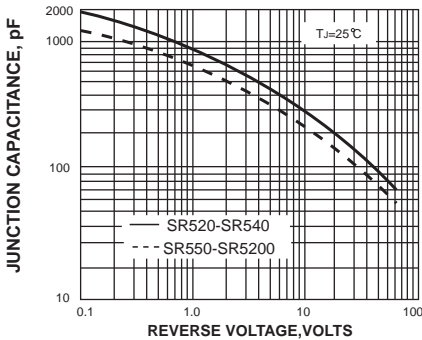
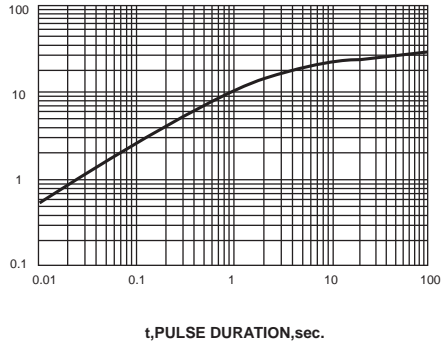


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)



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