



# SR520 THRU SR5200

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

## SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ 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

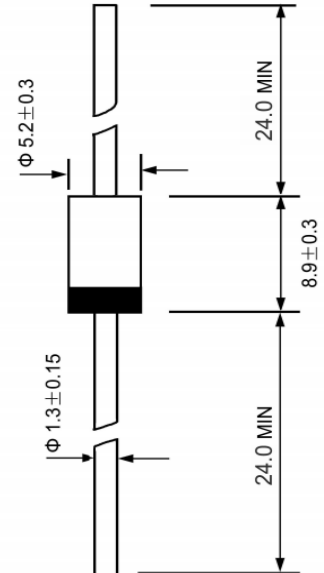
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.04 ounce, 1.10 grams

### DO-201AD



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%.

| Parameter                                                                                                     | SYMBOLS           | HY          | HY    | HY    | HY    | HY    | HY    | HY          | HY    | HY     | HY     | HY     | HY  | UNITS |
|---------------------------------------------------------------------------------------------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------------|-------|--------|--------|--------|-----|-------|
| Marking Code                                                                                                  |                   | SR520       | SR530 | SR540 | SR550 | SR560 | SR570 | SR580       | SR590 | SR5100 | SR5150 | SR5200 |     |       |
| Maximum repetitive peak reverse voltage                                                                       | V <sub>RRM</sub>  | 20          | 30    | 40    | 50    | 60    | 70    | 80          | 90    | 100    | 150    | 200    | V   |       |
| Maximum RMS voltage                                                                                           | V <sub>RMS</sub>  | 14          | 21    | 28    | 35    | 42    | 49    | 56          | 63    | 70     | 105    | 140    | V   |       |
| Maximum DC blocking voltage                                                                                   | V <sub>DC</sub>   | 20          | 30    | 40    | 50    | 60    | 70    | 80          | 90    | 100    | 150    | 200    | V   |       |
| Maximum average forward rectified current<br>0.375”(9.5mm) lead length(see fig.1)                             | I <sub>(AV)</sub> | 5.0         |       |       |       |       |       |             |       |        |        |        | A   |       |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed onrated load (JEDEC Method)         | I <sub>FSM</sub>  | 150         |       |       |       |       |       |             |       |        |        |        | A   |       |
| Maximum instantaneous forward voltage at 5.0A                                                                 | V <sub>F</sub>    | 0.55        |       |       | 0.70  |       |       | 0.85        |       |        |        | 0.95   | V   |       |
| Maximum DC reverse current      T <sub>A</sub> =25℃<br>at rated DC blocking voltage      T <sub>A</sub> =100℃ | I <sub>R</sub>    | 0.5         |       |       |       |       |       |             |       |        | 0.2    |        | mA  |       |
|                                                                                                               |                   | 20.0        |       |       |       | 10.0  |       |             |       | 2.0    |        |        |     |       |
| Typical junction capacitance (NOTE 1)                                                                         | C <sub>J</sub>    | 500         |       |       | 400   |       |       |             |       |        |        |        |     | pF    |
| Typical thermal resistance (NOTE 2)                                                                           | R <sub>θJA</sub>  | 25.0        |       |       |       |       |       |             |       |        |        |        | ℃/W |       |
| Operating junction and storage                                                                                | T <sub>J</sub>    | -50 to +125 |       |       |       |       |       | -50 to +150 |       |        |        |        |     | ℃     |
| Storage temperature range                                                                                     | T <sub>STG</sub>  | -50 to +150 |       |       |       |       |       |             |       |        |        |        | ℃   |       |

**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



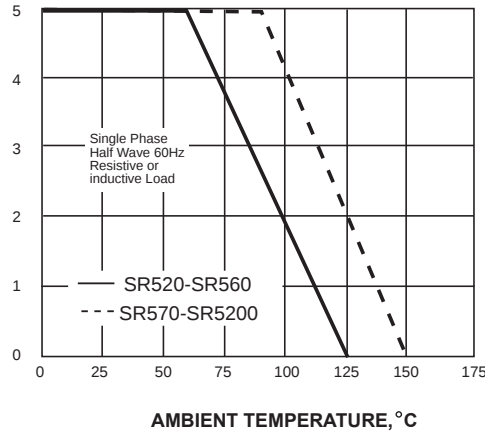
# SR520 THRU SR5200

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

## Ratings And Characteristic Curves

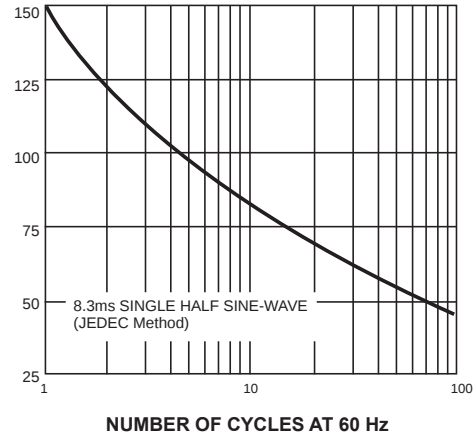
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



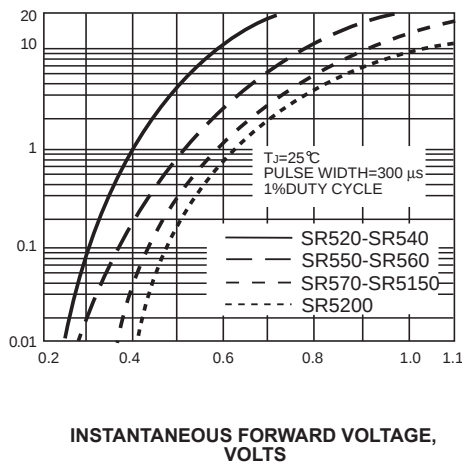
PEAK FORWARD SURGE CURRENT,  
AMPERES

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



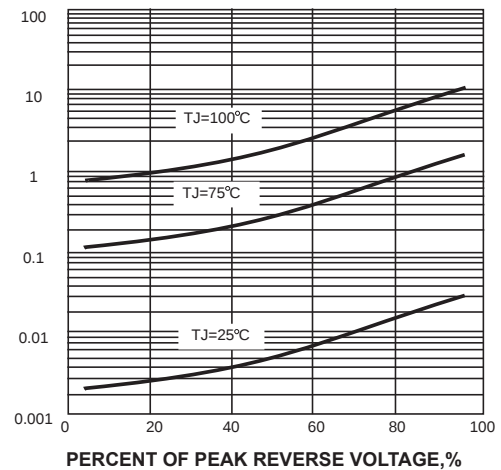
INSTANTANEOUS FORWARD CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



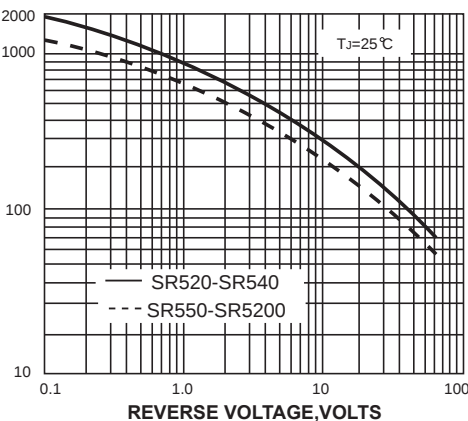
INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



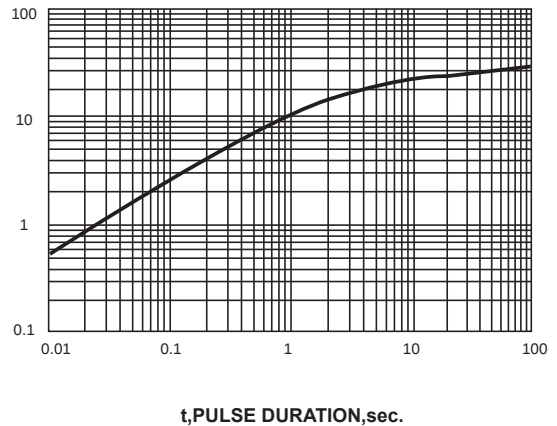
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.

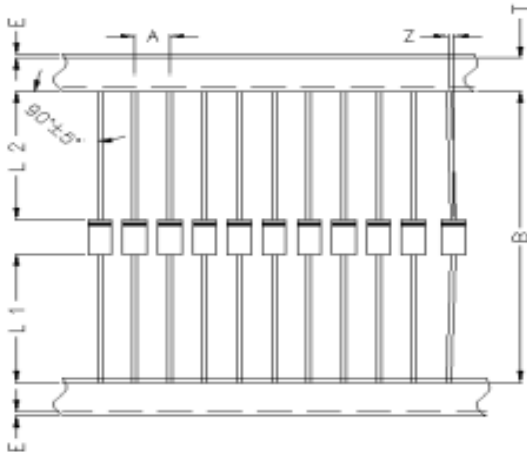


# SR520 THRU SR5200

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

## Package Information

### Taping Specifications



| Item                | Symbol | Specifications(mm) |
|---------------------|--------|--------------------|
| Component Pitch     | A      | 10.0±0.5           |
| Inner Tape Pitch    | B      | 52.4±1.5           |
| Component alignment | Z      | 1.2 Max            |
| Tape width          | T      | 6.0±0.5            |
| Exposed adhesive    | E      | 0.8 Max            |
| Body eccentricity   | L1-L2  | 1.0 Max            |

### Ammunition Package Specifications

| Package    | Inner Box Size (mm) | QTY/Box (pcs) | Carton Size (mm) | Q'TY/Carton (pcs) |
|------------|---------------------|---------------|------------------|-------------------|
| DO - 201AD | 255*74*145          | 1000          | 410*275*340      | 10000             |

### Bulk Package Specifications

| Package    | Inner Box Size (mm) | QTY/Box (pcs) | Carton Size (mm) | Q'TY/Carton (pcs) |
|------------|---------------------|---------------|------------------|-------------------|
| DO - 201AD | 198*86*21           | 200           | 460*220*250      | 10000             |