

# SR520 THRU SR5200

## SCHOTTKY BARRIER RECTIFIER



康比電子  
HORNBY ELECTRONIC

**REVERSE VOLTAGE:** 20 to 200 VOLTS

**FORWARD CURRENT:** 5.0 AMPERE

### FEATURES

- High current capability
- High surge current capability
- Low forward voltage drop
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and porlarlity protection applications
- Suffix "H" indicates Halogen-free parts, ex. SR520H.

### MECHANICAL DATA

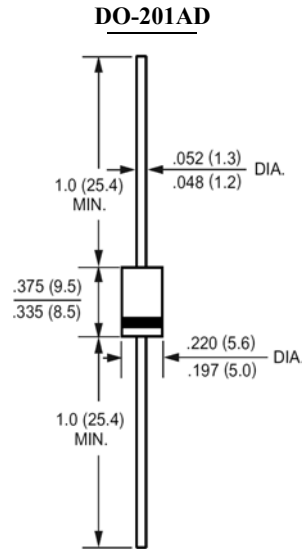
Case : Molded plastic, DO-201AD

Epoxy : UL 94V-O rate flame retardant

Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity : Color band denotes cathode end

Mounting position : Any



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, derate current by 20%.

| Parameter   | Symbols         | SR520       | SR530 | SR540 | SR550 | SR560       | SR580 | SR5100 | SR5150 | SR5200 | Units |      |
|---|-----------------|-------------|-------|-------|-------|-------------|-------|--------|--------|--------|-------|------|
| Maximum Recerrent 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          | 56    | 70     | 105    | 140    | Volts |      |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 20          | 30    | 40    | 50    | 60          | 80    | 100    | 150    | 200    | Volts |      |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) Lead Length                                   | $I_{(AV)}$      | 5.0         |       |       |       |             |       |        |        |        | Amp   |      |
| Peak Forward Surge Current,<br>8.3ms single half-sine-wave<br>superimposed on rated load (JEDEC method) | $I_{FSM}$       | 100.0       |       |       |       |             |       |        |        |        | Amp   |      |
| Maximum Forward Voltage at 5.0A DC and 25 °C  | $V_F$           | 0.55        |       |       | 0.70  |             | 0.85  |        | 0.95   |        | Volts |      |
| Maximum Reverse Current at $T_A=25^{\circ}C$<br>at Rated DC Blocking Voltage $T_A=100^{\circ}C$         | $I_R$           |             |       |       |       | 0.5         |       |        |        |        |       | mAmp |
| Typical Junction Capacitance (Note 1)   | $C_J$           |             |       |       |       | 380         |       |        |        |        |       | pF   |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ |             |       |       |       | 25          |       |        |        |        |       | °C/W |
| Operating and Storage Temperature Range   | $T_J, T_{stg}$  | -55 to +125 |       |       |       | -55 to +150 |       |        |        |        | °C    |      |

#### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted

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### RATINGS AND CHARACTERISTIC CURVES

FIG. 1 FORWARD CURRENT DERATING CURVE

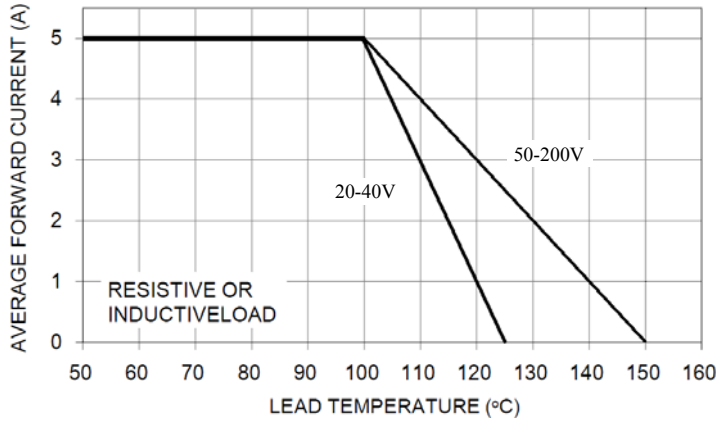


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

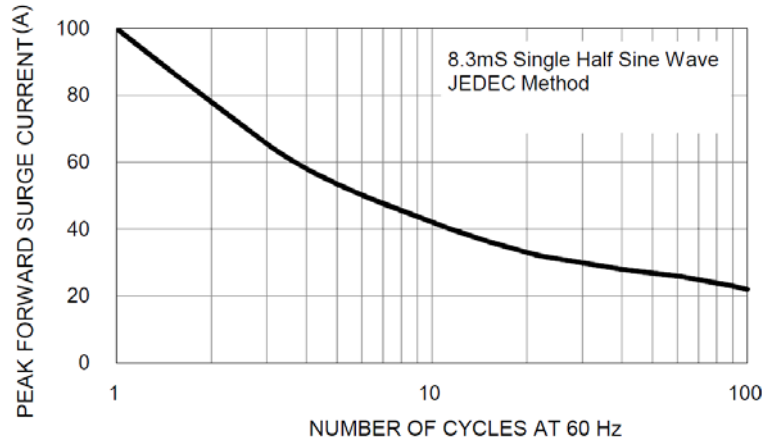


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

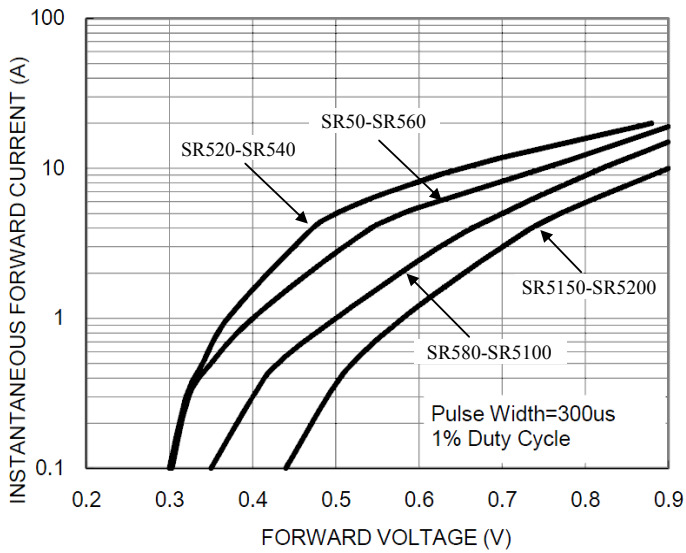


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

