

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 200 Volts CURRENT 5.0 Amperes**

**FEATURES**

- \* High reliability
- \* Low switching loss
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability

**MECHANICAL DATA**

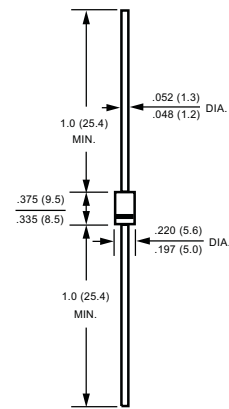
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Case: Molded plastic
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting: position: Any
- \* Weight: 1.18 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



**DO-201AD**



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

| RATINGS                                                                                           | SYMBOL           | SR520        | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | SR5150 | SR5200 | UNITS            |
|---------------------------------------------------------------------------------------------------|------------------|--------------|-------|-------|-------|-------|-------|--------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                            | V <sub>RRM</sub> | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts            |
| Maximum RMS Voltage                                                                               | V <sub>RMS</sub> | 14           | 21    | 28    | 35    | 42    | 56    | 70     | 105    | 140    | Volts            |
| Maximum DC Blocking Voltage                                                                       | V <sub>DC</sub>  | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts            |
| Maximum Average Forward Rectified Current at Derating Lead Temperature                            | I <sub>O</sub>   | 5.0          |       |       |       |       |       |        |        |        | Amps             |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 150          |       |       |       |       |       |        |        |        | Amps             |
| Typical Current Squared Time                                                                      | I <sup>2</sup> T | 93.3         |       |       |       |       |       |        |        |        | A <sup>2</sup> S |
| Typical Thermal Resistance (Note 1)                                                               | R <sub>θJA</sub> | 25           |       |       |       |       |       |        |        |        | °C/W             |
|                                                                                                   | R <sub>θJL</sub> | 8            |       |       |       |       |       |        |        |        |                  |
| Typical Junction Capacitance (Note 3)                                                             | C <sub>J</sub>   | 200          |       |       |       |       |       |        |        |        | pF               |
| Operating Temperature Range                                                                       | T <sub>J</sub>   | 150          |       |       |       |       |       |        |        |        | °C               |
| Storage Temperature Range                                                                         | T <sub>STG</sub> | -55 to + 150 |       |       |       |       |       |        |        |        | °C               |

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

| CHARACTERISTICS                                                 |                         | SYMBOL         | SR520 | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | SR5150 | SR5200 | UNITS |
|-----------------------------------------------------------------|-------------------------|----------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 5.0A DC                |                         | V <sub>F</sub> | .55   |       |       | .75   |       | .85   |        |        |        | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | @T <sub>A</sub> = 25°C  | I <sub>R</sub> | 0.2   |       |       |       |       |       |        |        |        | mA    |
|                                                                 | @T <sub>A</sub> = 100°C |                | 2     |       |       |       |       |       |        |        |        | mA    |

NOTES : 1. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2009-10  
REV:A

## RATING AND CHARACTERISTICS CURVES ( SR520 THRU SR5200 )

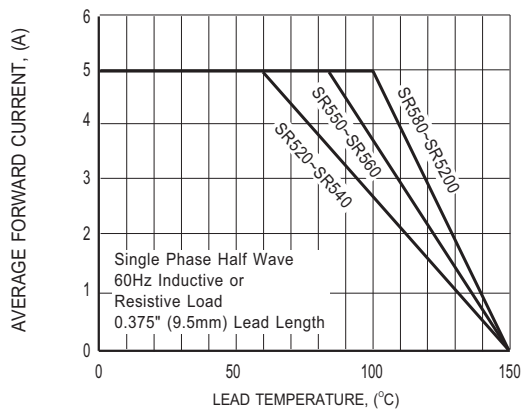


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

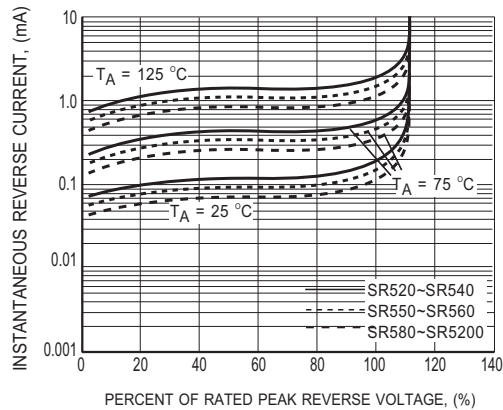


FIG.2 TYPICAL REVERSE CHARACTERISTICS

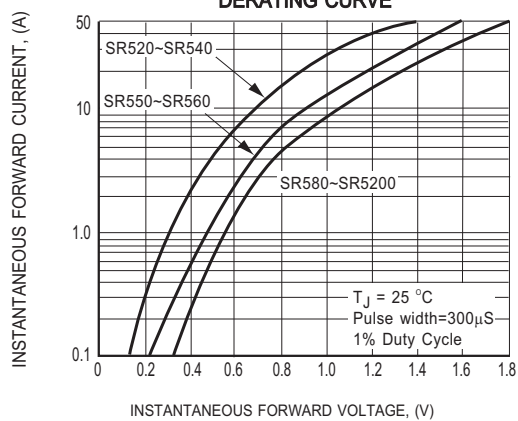


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

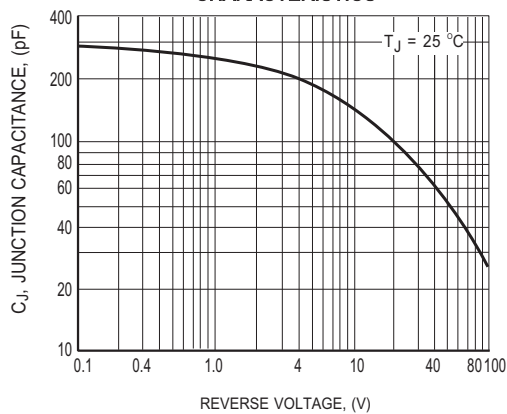


FIG.4 TYPICAL JUNCTION CAPACITANCE

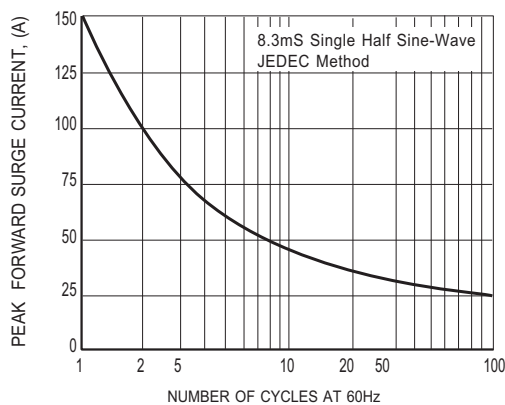
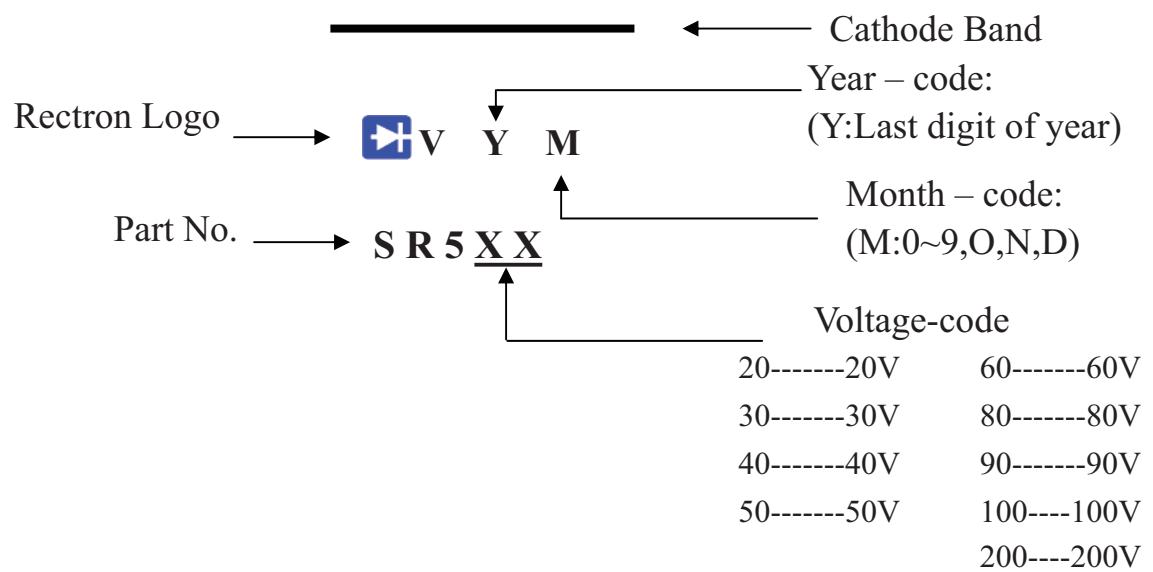


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | GROSS<br>WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|---------------------|
| DO-201  | -B           | 500        | 300*73*40              | 347*320*271         | 12,000        | 15.9                |

### REEL PACK

| PACKAGE | PACKING<br>CODE | EA PER<br>REEL | EA PER<br>INNER<br>BOX | COMPONENT<br>SPACE<br>(mm) | TAPE SPACE<br>(mm) | REEL DIA<br>(mm) | CARTON SIZE<br>(mm) | EA PER<br>CARTON | GROSS<br>WEIGHT(Kg) |
|---------|-----------------|----------------|------------------------|----------------------------|--------------------|------------------|---------------------|------------------|---------------------|
| DO-201  | -T              | 1,200          | 1,200                  | 5.0                        | 52                 | 330              | 355*350*335         | 4,800            | 9.10                |

### AMMO PACK

| PACKAGE | PACKING<br>CODE | REEL<br>( EA ) | COMPONENT<br>SPACE(mm) | TAPE SPACE<br>(mm) | BOX SIZE<br>(mm) | CARTON<br>SIZE(mm) | CARTON<br>( EA ) | GROSS<br>WEIGHT (Kg) |
|---------|-----------------|----------------|------------------------|--------------------|------------------|--------------------|------------------|----------------------|
| DO-201  | -F              | 600            | 9.5                    | 52                 | 255*73*100       | 400*268*225        | 6,000            | 9.9                  |

## DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Rectron:](#)

[SR540-T](#) [SR540-B](#) [SR560-T](#) [SR560-B](#) [SR530-B](#) [SR550-B](#) [SR550-T](#) [SR520-B](#) [SR520-T](#) [SR530-T](#)