

# SR502 - SR506

## HIGH CURRENT SCHOTTKY BARRIER RECTIFIER

#### Features

- High Current Capability and Low Forward Drop
- High Surge Capacity
- Guard Ring for Transient Protection
- Low Power Loss, High Efficiency
- Plastic Material: UL Flammability Classification Rating 94V-0

#### **Mechanical Data**

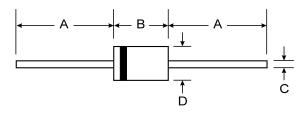
- Case: Molded Plastic
- Terminals: Axial Lead, Solderable per MIL-STD-202, Method 208
- Mounting Position: Any
- Polarity: Cathode Band
- Weight: 1.20 grams (approx.)

### Maximum Ratings and Electrical Characteristics

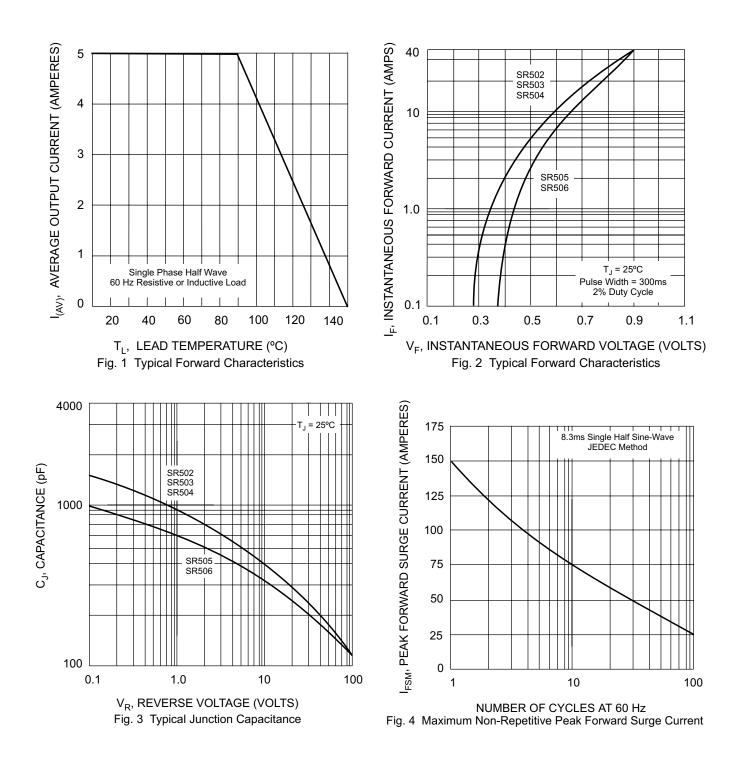
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

| Characteristic   | Symbol            | SR502       | SR503 | SR504 | SR505 | SR506 | Unit |
|--|-------------------|-------------|-------|-------|-------|-------|------|
| Maximum Recurrent Peak Reverse Voltage   |                   | 20          | 30    | 40    | 50    | 60    | V    |
| Maximum RMS Voltage  | VRSM              | 14          | 21    | 28    | 35    | 42    | V    |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>   | 20          | 30    | 40    | 50    | 60    | V    |
| Maximum Average Forward Rectified @ T <sub>L</sub> = 90°C<br>Current 9.5mm lead length                             | l <sub>(AV)</sub> | 5.0         |       |       | А     |       |      |
| Peak Forward Surge current 8.3ms half sine-wave<br>Superimposed on Rated Load (JEDEC Method)                       | I <sub>FSM</sub>  | 150         |       |       | А     |       |      |
| Maximum Forward Voltage @ 5.0/   | A VF              | 0.55 0.67   |       | 67    | V     |       |      |
| Maximum Average Reverse Current at<br>Peak Reverse Voltage $@$ T <sub>A</sub> = 25°C<br>$@$ T <sub>A</sub> = 100°C |                   | 1.0<br>50   |       |       | mA    |       |      |
| Typical Thermal Resistance (Note 1)  | R <sub>0JL</sub>  |             | 15    |       | 1     | 0     | K/W  |
| Typical Junction Capacitance (Note 2)  | CJ                |             | 550   |       | 40    | 00    | pF   |
| Storage and Operating Temperature Range  | TJ, TSTG          | -65 to +150 |       |       | °C    |       |      |

Notes: 1. Thermal Resistance from Junction to Lead Vertical PC Board Mounting, 9.5mm Lead Length. 2. Measured at 1.0MHz and applied reverse voltage of 4.0V.



| DO-201AD             |       |      |  |  |  |
|----------------------|-------|------|--|--|--|
| Dim                  | Min   | Max  |  |  |  |
| Α                    | 25.40 |      |  |  |  |
| В                    | 7.20  | 9.50 |  |  |  |
| С                    | 1.20  | 1.30 |  |  |  |
| D                    | 4.80  | 5.20 |  |  |  |
| All Dimensions in mm |       |      |  |  |  |



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