



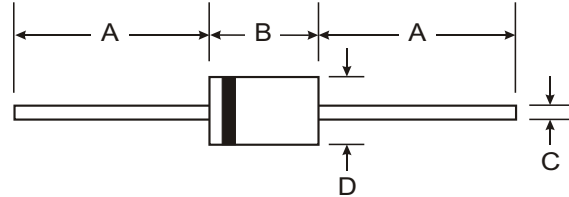
THE DATASHEET OF SR504-T



NOT RECOMMENDED FOR NEW DESIGNS,
PLEASE USE SB520 - SB560

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: DO-201AD, Molded Plastic
- Terminals: Axial Lead, Solderable per MIL-STD-202, Method 208
- Mounting Position: Any
- Polarity: Cathode Band
- Weight: 1.20 grams (approx.)

| DO-201AD | | |
|----------------------|-------|------|
| Dim | Min | Max |
| A | 25.40 | |
| B | 7.20 | 9.50 |
| C | 1.20 | 1.30 |
| D | 4.80 | 5.20 |
| All Dimensions in mm | | |

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 | V_{RRM} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS Voltage | V_{RSM} | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum Average Forward Rectified Current 9.5mm lead length @ $T_L = 90\text{ C}$ | $I_{(AV)}$ | 5.0 | | | | | A |
| Peak Forward Surge current 8.3ms half sine-wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 150 | | | | | A |
| Maximum Forward Voltage @ 5.0A | V_F | 0.55 | | 0.67 | | | V |
| Maximum Average Reverse Current at Peak Reverse Voltage @ $T_A = 25\text{ C}$ @ $T_A = 100\text{ C}$ | I_R I_R | 1.0 50 | | | | | mA |
| Typical Thermal Resistance (Note 1) | R_{JL} | 15 | | | 10 | | K/W |
| Typical Junction Capacitance (Note 2) | C_J | 550 | | | 400 | | pF |
| Storage and Operating Temperature Range | T_J, T_{STG} | -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.

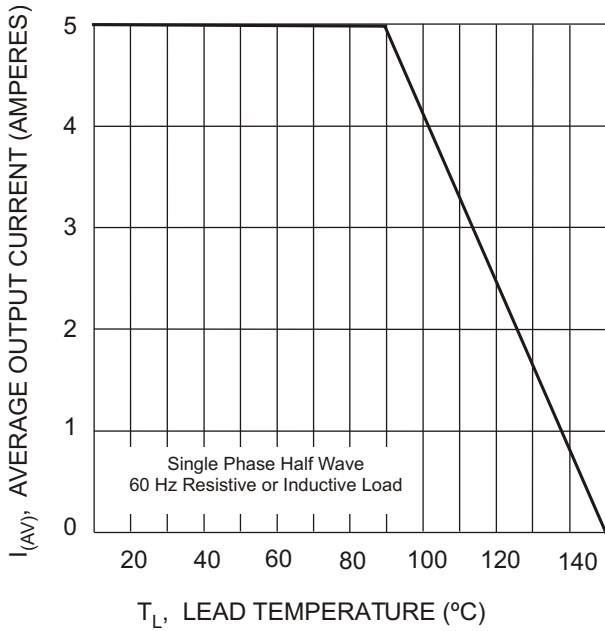


Fig. 1 Typical Forward Characteristics

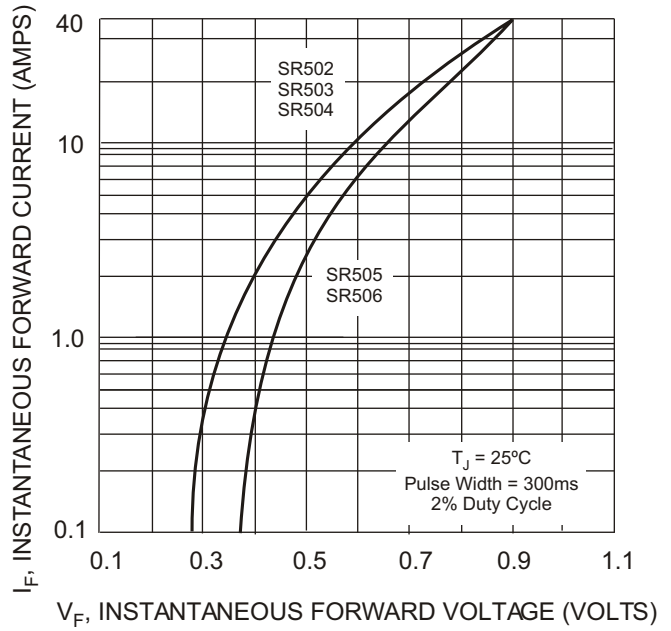


Fig. 2 Typical Forward Characteristics

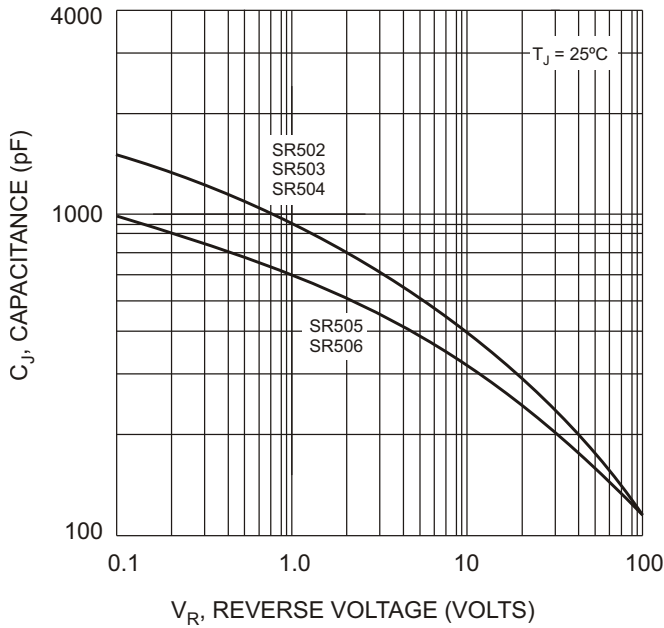


Fig. 3 Typical Junction Capacitance

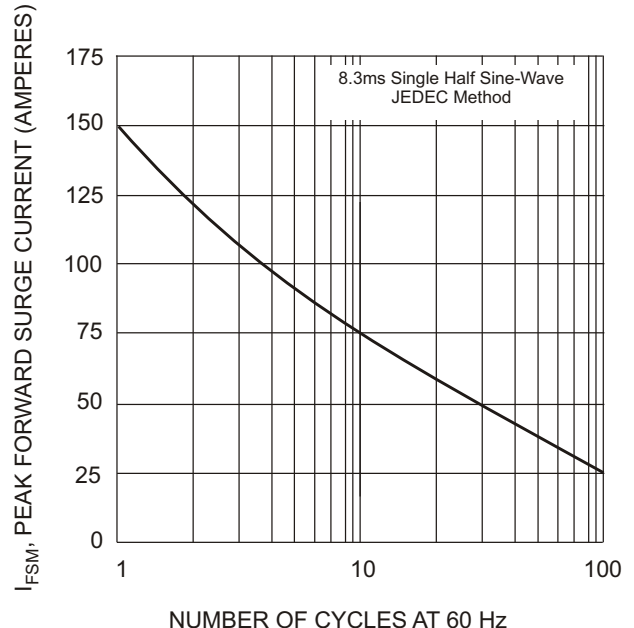


Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current

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