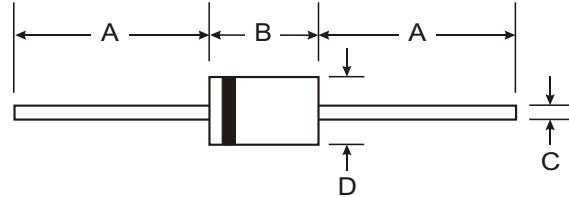


NOT RECOMMENDED FOR NEW DESIGNS,  
PLEASE USE SB520 - SB560

### 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 @ $T_L = 90^\circ\text{C}$	$I_{(AV)}$	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 @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	$I_R$ $I_R$	1.0 50					mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	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.

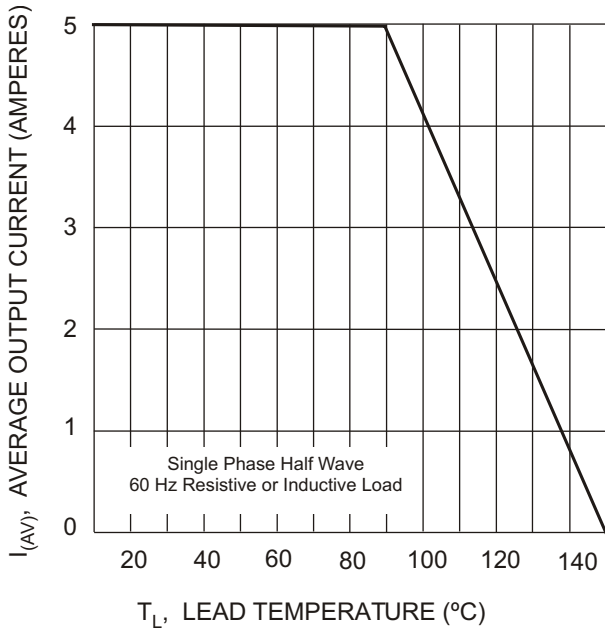


Fig. 1 Typical Forward Characteristics

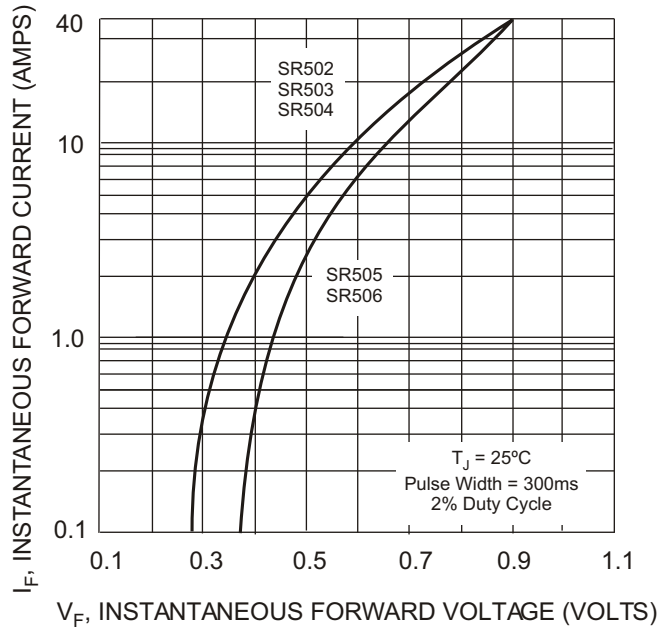


Fig. 2 Typical Forward Characteristics

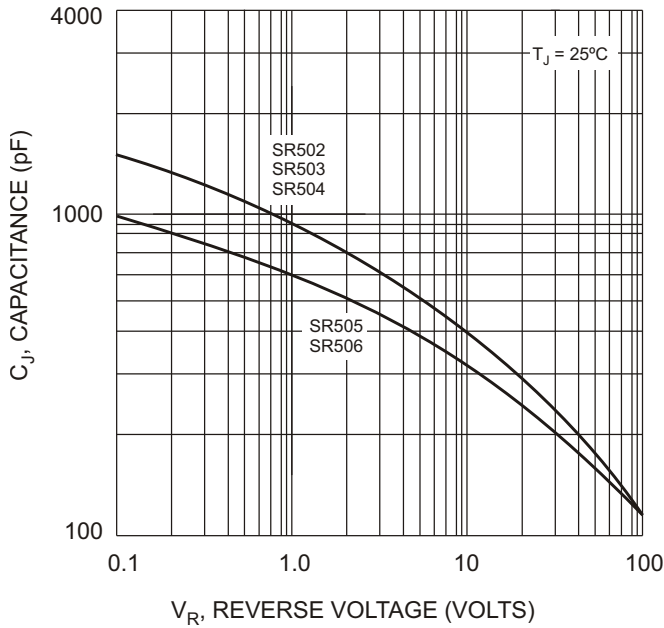


Fig. 3 Typical Junction Capacitance

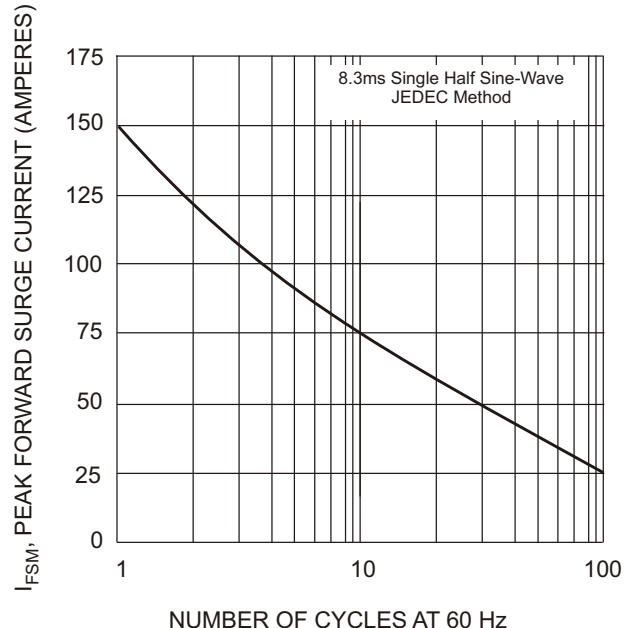


Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current

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