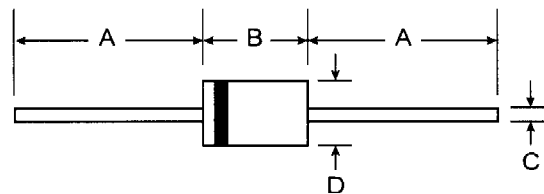


SR502 - SR506

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
- 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					$^\circ\text{C}$

- 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.



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

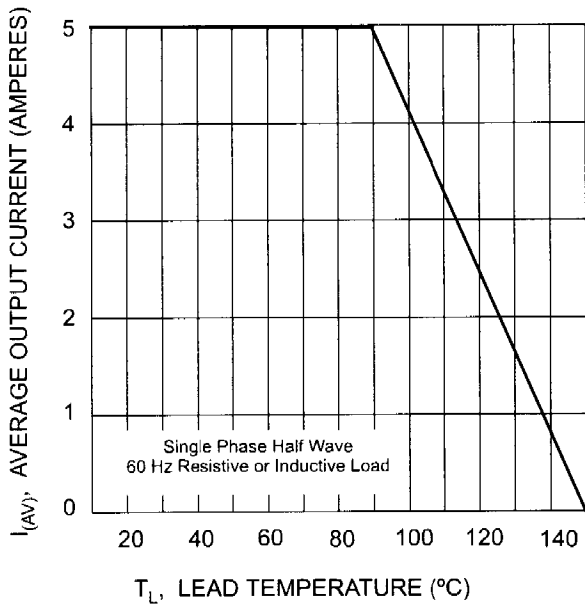


Fig. 1 Typical Forward Characteristics

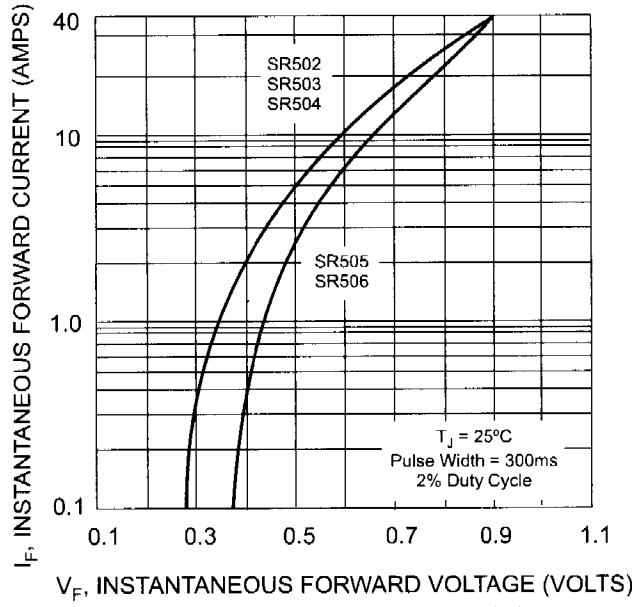


Fig. 2 Typical Forward Characteristics

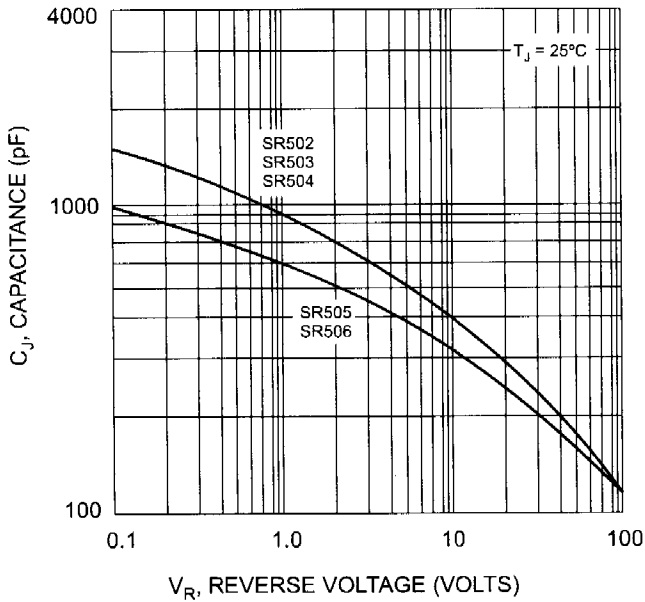


Fig. 3 Typical Junction Capacitance

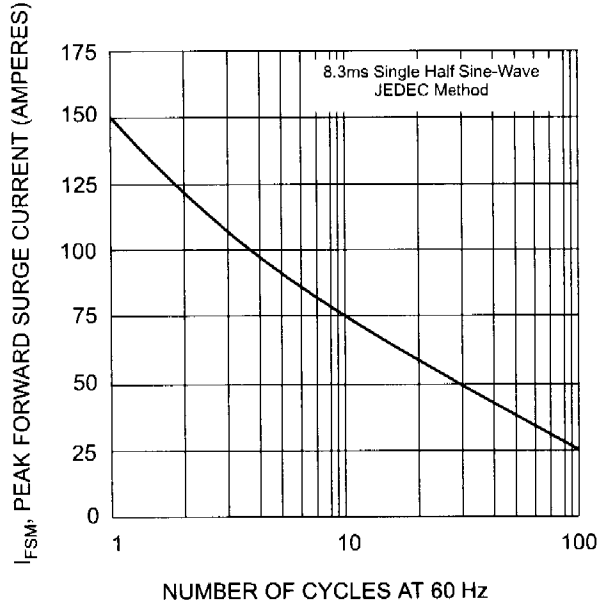


Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current