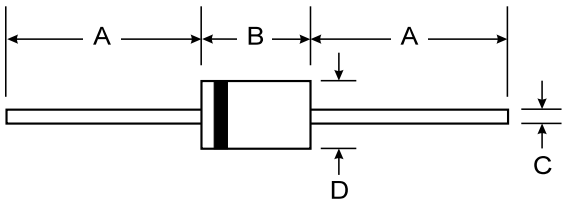
SR502 - SR506

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.)

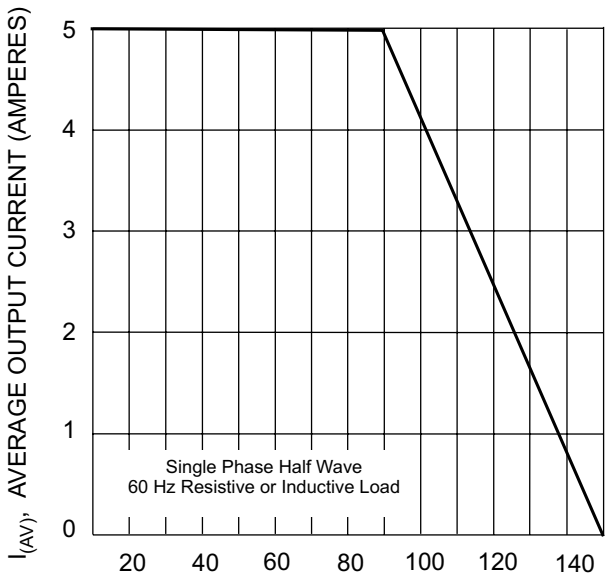
DO-201AD		
Dim	**Min**	**Max**
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.20
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

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

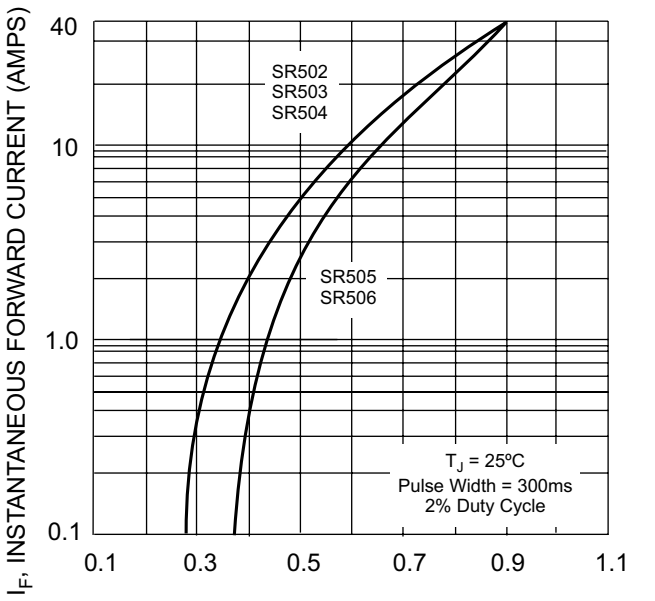
Characteristic	Symbol	SR502	SR503	SR504	SR505	SR506	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V_{RSM}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current 9.5mm lead length @ T_L = 90°C	$I_{(AV)}$	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 @ T_A = 25°C Peak Reverse Voltage @ T_A = 100°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.



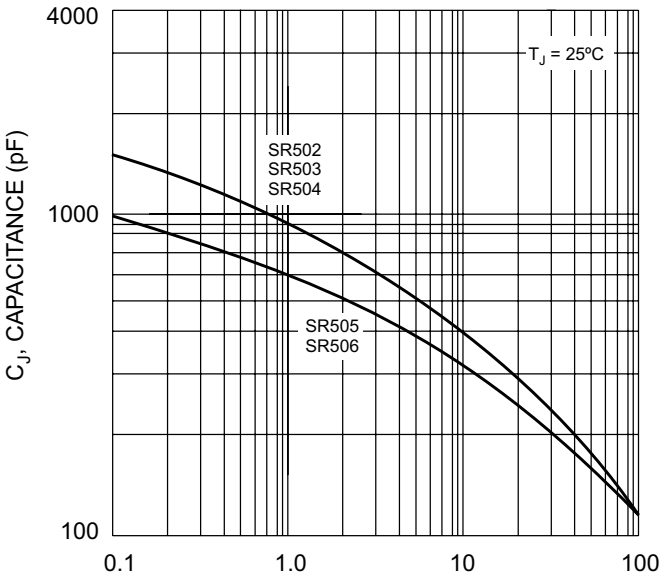
T_L, LEAD TEMPERATURE (ºC)

Fig. 1 Typical Forward Characteristics



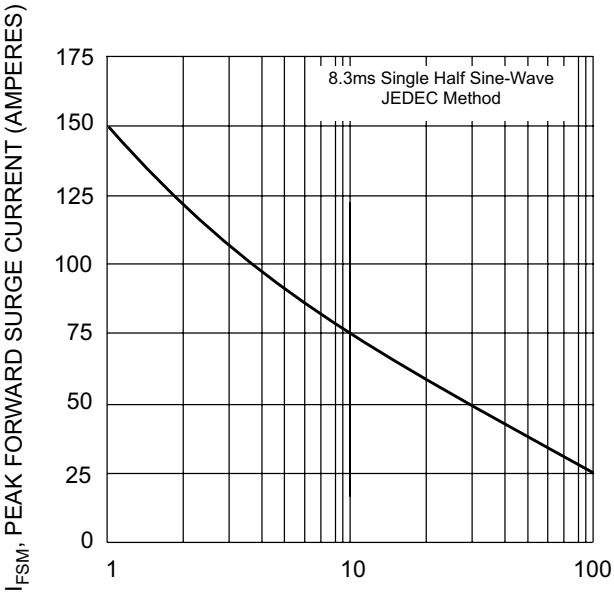
V_F, INSTANTANEOUS FORWARD VOLTAGE (VOLTS)

Fig. 2 Typical Forward Characteristics



V_R, REVERSE VOLTAGE (VOLTS)

Fig. 3 Typical Junction Capacitance



NUMBER OF CYCLES AT 60 Hz

Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current