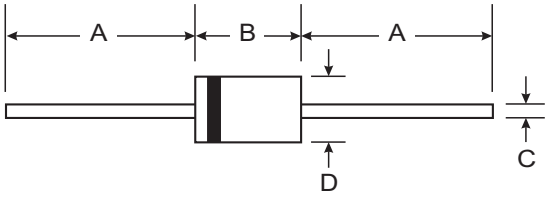
SR302 - SR306

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 Package: 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: 1.2 grams (approx.)

DO-201AD		
Dim	**Min**	**Max**
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	SR302	SR303	SR304	SR305	SR306	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 @ Lead temperature (T_L) T_L = 95°C measured 9.5mm lead length from body T_L = 100°C	$I_{(AV)}$	3.0 —			— 3.0		A
Peak Forward Surge Current 8.3ms half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80					A
Maximum Forward Voltage at 1.0A	V_F	0.55			0.72		V
Maximum Average Reverse Current at T_A = 25°C Peak Reverse Voltage T_A = 100°C	I_R	1.0 20					mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	20					K/W
Typical Junction Capacitance (Note 2)	C_J	300					pF
Storage and Operating Temperature Range	T_J, T_{STG}	-65 to +150					°C

Notes: 1. Thermal Resistance from Junction to Ambient Vertical PC Board Mounting, 1.27mm Lead Length.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

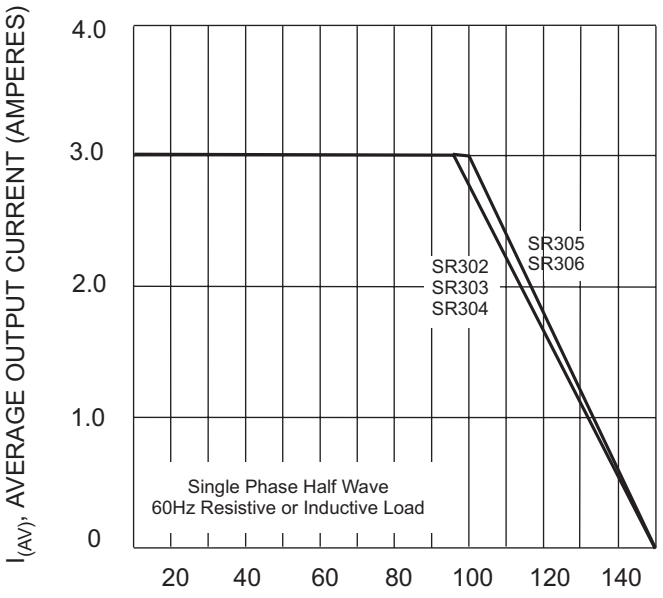


Fig. 1, Forward Current Derating Curve

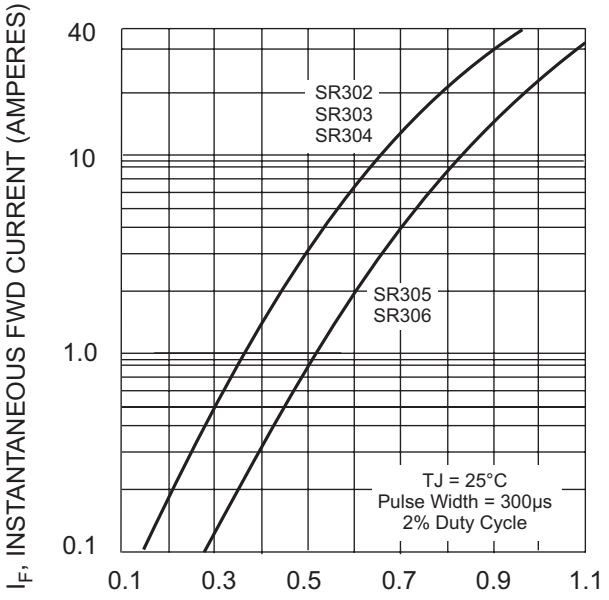


Fig. 2, Typical Forward Characteristics

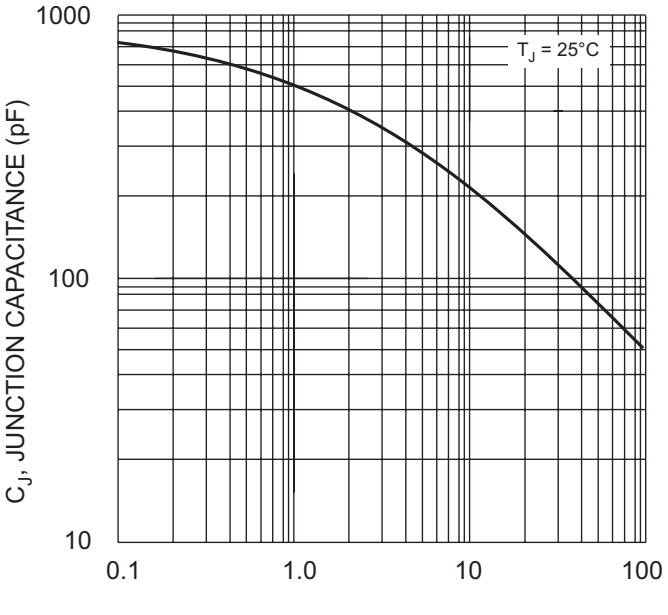


Fig. 3, Typical Junction Capacitance

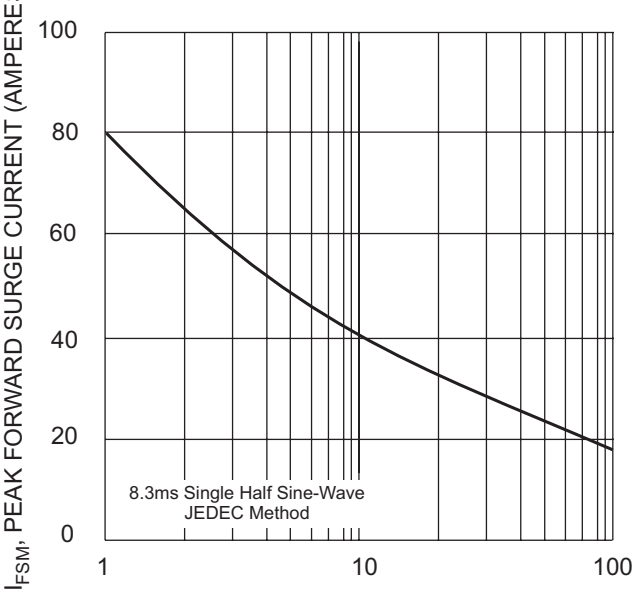


Fig. 4, Max Non-Repetitive Peak Fwd Surge Current