



# SR302 THRU SR3010

## 3.0 AMPS. SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE RANGE**  
50 to 1000 Volts  
**CURRENT**  
3.0 Amperes

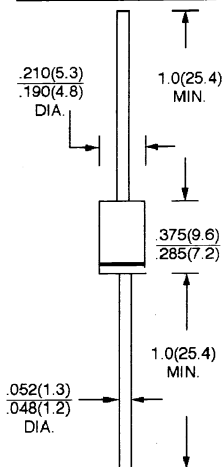
### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

### MECHANICAL DATA

- \* Case: DO-201 AD Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Weight: 1.10 grams

### DO-201AD



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	SR302	SR303	SR304	SR305	SR306	SR308	SR3010	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current See Fig. 1	I <sub>F(AV)</sub>	3.0							A
Peak Forward Surge Current. (8.3 ms, half sine)	I <sub>FSM</sub>	80							A
Maximum Instantaneous Forward Voltage @ 3.0A (Note 1)	V <sub>F</sub>	0.550			0.750		0.850		V
Maximum D.C Reverse Current at Rated D.C Blocking Voltage	I <sub>R</sub>	@ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 100°C					1.0 30		mA
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	20			10				°C/W
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	300			250				pF
Operating and Storage Temperature Range	T <sub>J</sub> /T <sub>STG</sub>	- 65 to + 125 / - 65 to + 150							°C

NOTE: (1) Pulse test: 300 $\mu$ s pulse width, 1% duty cycle  
(2) Thermal Resistance Junction to Ambient Vertical PC Board Mounted, .0500" (12.7mm) Lead Length with 2.5 x 2.5" (63.5 x 63.5mm) copper pads.  
(3) Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SR302 THRU SR3010)

FIG. 1 - FORWARD CURRENT DERATING CURVE

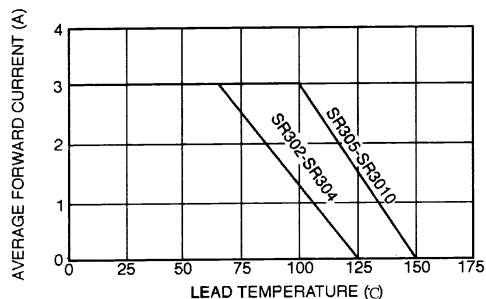


FIG. 2 - TYPICAL FORWARD CHARACTERISTICS

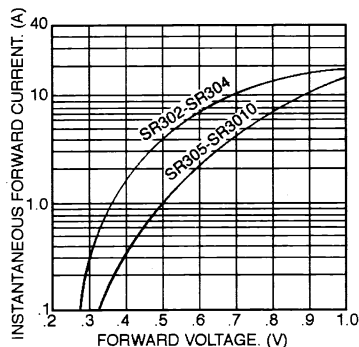


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

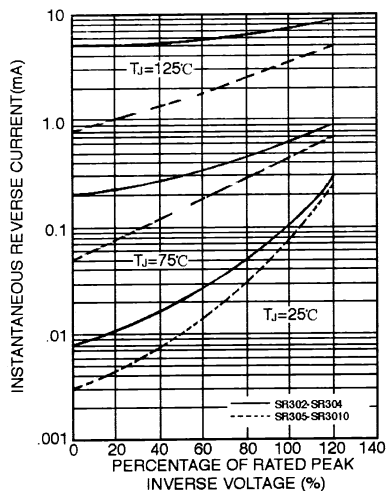


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

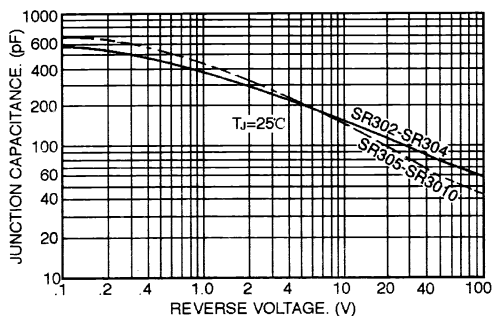


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

