

70668



# SR502 THRU SR506

## 5.0 AMPS. SCHOTTKY BARRIER RECTIFIERS



**VOLTAGE RANGE**  
20 to 60 Volts  
**CURRENT**  
5.0 Amperes

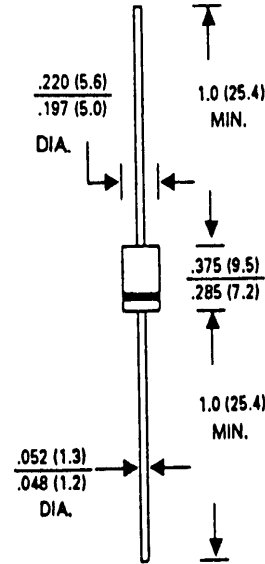
### FEATURES

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

### MECHANICAL DATA

- \* Case: DO-201AD 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
- \* High temperature soldering guaranteed: 250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- \* Weight: 1.1 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	SR502	SR503	SR504	SR505	SR506	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V
Maximum RMS Voltage	14	21	28	35	42	V
Maximum DC Blocking Voltage	20	30	40	50	60	V
Maximum Average Forward Rectified Current See Fig. 1	5.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150					A
Maximum Instantaneous Forward Voltage @ 5.0A	0.570		0.700			V
Maximum D.C Reverse Current @ TA=25°C at Rated D.C Blocking Voltage @ TA=100°C	1.0		50			mA
Typical Thermal Resistance RθJA (Note 1)	15		10			°C/W
Typical Junction Capacitance (Note 2)	500		380			pF
Operating and Storage Temperature Range Tj, Tstg	-65 to +125		-65 to +150			°C

NOTES: 1. Thermal Resistance Junction to Ambient Vertical PC Board Mounting, .375" (9.5mm) Lead Length.  
2. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

FIG. 1-FOR

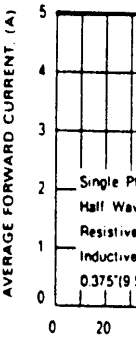
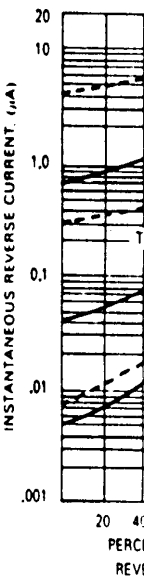


FIG. 3-TYPICAL



RATINGS AND CHARACTERISTIC CURVES (SR502 THRU SR506)

FIG.1-FORWARD CURRENT DERATING CURVE

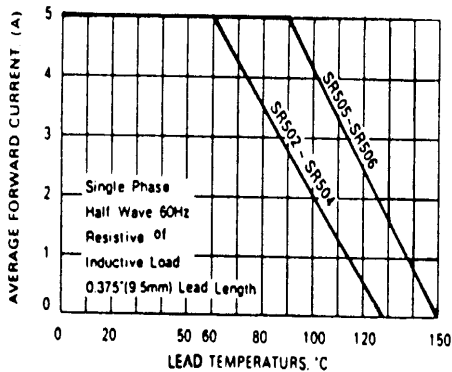


FIG 2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

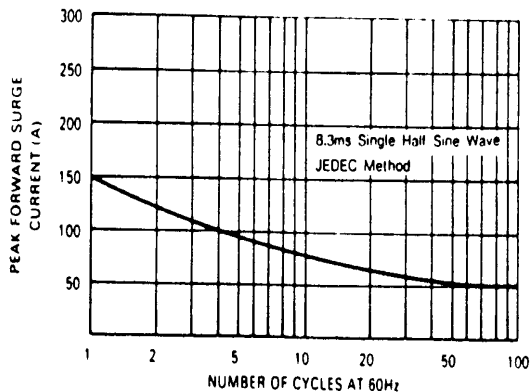


FIG 3-TYPICAL REVERSE CHARACTERISTICS

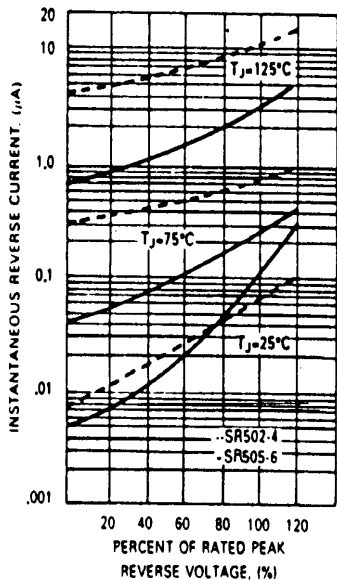


FIG.4-TYPICAL FORWARD CHARACTERISTICS

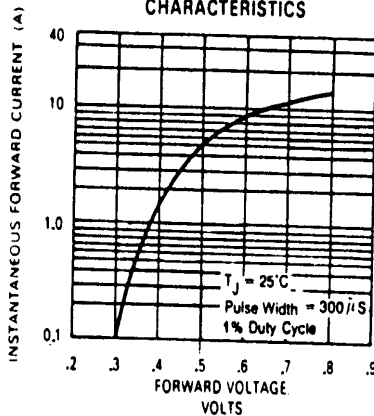


FIG.5-TYPICAL JUNCTION CAPACITANCE

