



# SR502 THRU SR510

## 5.0 AMPS. Schottky Barrier Rectifiers

Voltage Range  
20 to 100 Volts  
Current  
5.0 Amperes

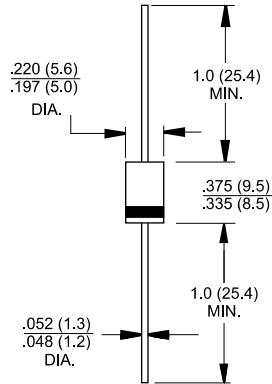
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Cases: DO-201AD molded plastic
- ✧ Epoxy: UL 94V-O 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%

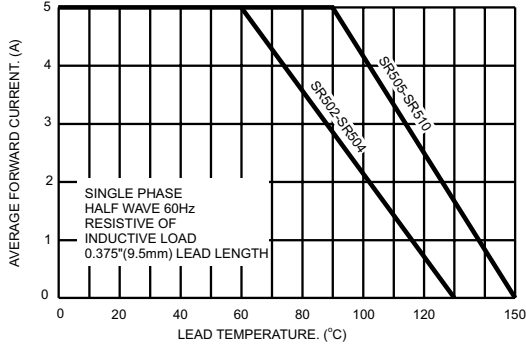
Type Number	SR 502	SR 503	SR 504	SR 505	SR 506	SR 509	SR 510	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	90	100	V
Maximum RMS Voltage	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current See Fig. 1	5.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )					150	200		A
Maximum Instantaneous Forward Voltage @5.0A	0.55		0.70		0.8			V
Maximum D.C. Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	0.5 50				0.2 10			mA mA
Typical Thermal Resistance (Note 1) R θ JA	15			10				°C/W
Typical Junction Capacitance (Note 2)	500			380		112		pF
Operating Junction Temperature Range T <sub>J</sub>	-65 to +125			-65 to +150				°C
Storage Temperature Range T <sub>STG</sub>	-65 to +150							°C

Notes: 1. Thermal Resistance from Junction to Ambient Vertical P.C. Board Mounting, 0.375" (9.5mm) Lead Length

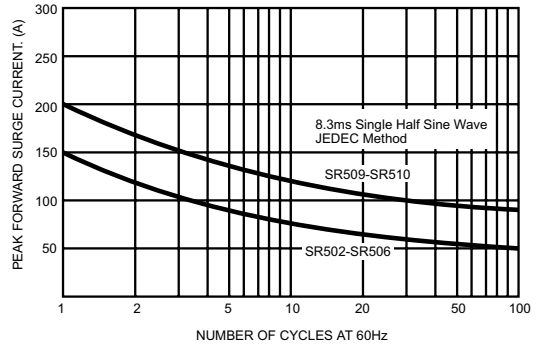
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SR502 THRU SR510)

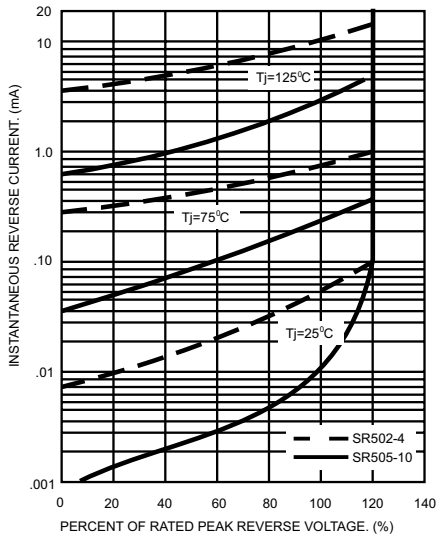
**FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE**



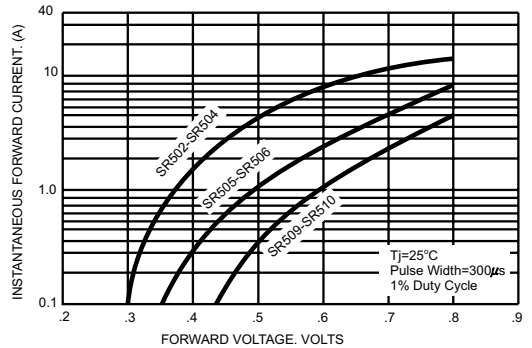
**FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 3- TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4- TYPICAL FORWARD CHARACTERISTICS**



**FIG. 5- TYPICAL JUNCTION CAPACITANCE**

