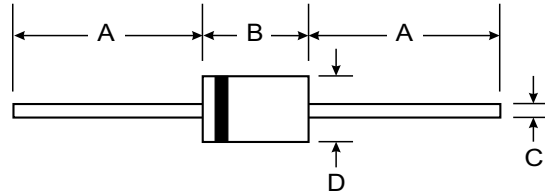


### Features

- 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:
- 260 °C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 1.1 grams



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<sub>A</sub> = 25°C unless otherwise specified

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

Type Number	Symbol	SR 502	SR 503	SR 504	SR 505	SR 506	SR 509	SR 510	SR 520	Units	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	90	100	200	V	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	63	70	140	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	90	100	200	V	
Maximum Average Forward Rectified Current See Fig. 1	I <sub>(AV)</sub>	5.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	200							150	A	
Maximum Instantaneous Forward Voltage @ 5.0A	V <sub>F</sub>	0.55		0.70		0.85		1.05		V	
Maximum D.C. Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	I <sub>R</sub>	0.5				0.2		0.01		mA mA	
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub> R <sub>θJC</sub>	35				10		2		°C/W	
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	250			210		120			pF	
Operating Junction Temperature Range	T <sub>J</sub>	-65 to +150									°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150									°C

- Notes: 1. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.



## RATINGS AND CHARACTERISTIC CURVES (SR502 THRU SR520)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

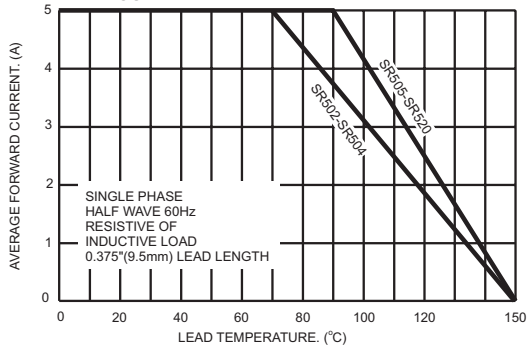


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

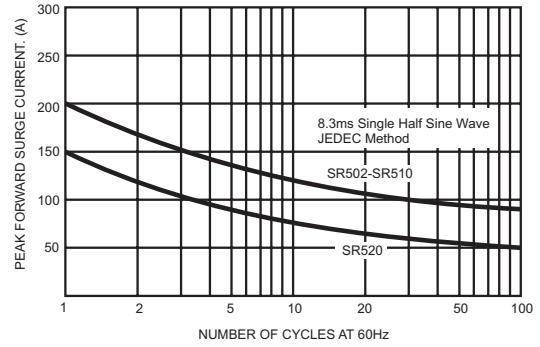


FIG.3- TYPICAL REVERSE CHARACTERISTICS

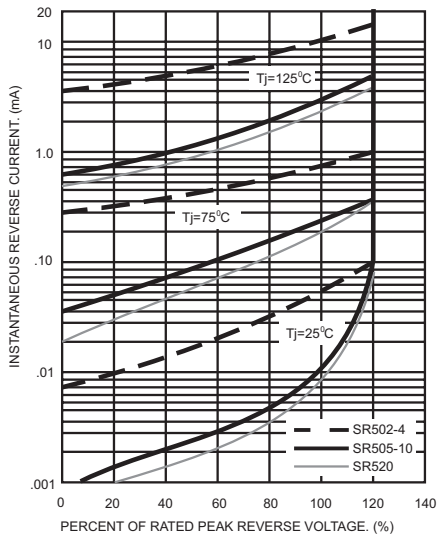


FIG.4- TYPICAL FORWARD CHARACTERISTICS

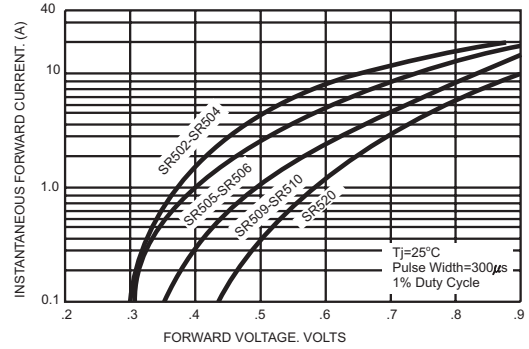


FIG.5- TYPICAL JUNCTION CAPACITANCE

