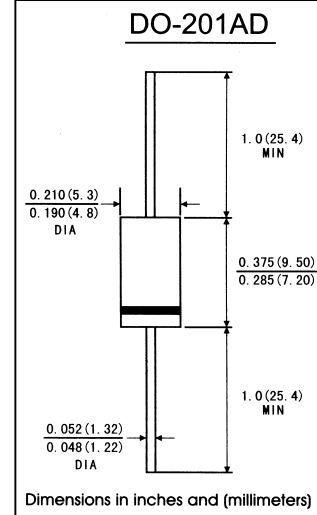


### FEATURES

- . Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- . Metal silicon junction ,majority carrier conduction
- . Guard ring for overvoltage protection
- . Low power loss,high efficiency
- . High current capability ,Low forward voltage drop
- . High surge capability
- . For use in low voltage ,high frequency inverters, free wheeling , and polarity protection applications
- . High temperature soldering guaranteed: 250°C/10 seconds at terminals, 0.375"(9.5mm)lead length, 5lbs.(2.3kg)tension

### MECHANICAL DATA

- . **Case:** JEDEC DO-201AD molded plastic body
- . **Terminals:** plated axial leads,solderable per MIL-STD-750,method 2026
- . **Polarity:** color band denotes cathode end
- . **Mounting Position:** Any
- . **Weight:** 0.041 ounce, 1.15 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified,Single phase,half wave,resistive or inductive)

load. For capacitive load,derate by 20%)

	Symbols	SR520	SR530	SR540	SR550	SR560	SR580	SR5A0	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current 0.375"(9.5mm)lead length (see Fig.1)	I <sub>(AV)</sub>	5.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T <sub>L</sub> )	I <sub>FSM</sub>	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)	V <sub>F</sub>	0.55		0.70		0.85	0.85	Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25°C	2.5							mA
	TA=100°C	50			25				
Typeical junction capacitance(Note 3)	C <sub>J</sub>	250			400				pF
Typeical thermal resistance(Note 2)	R θ <sub>JA</sub>	25.0							°C/W
	R θ <sub>JL</sub>	8.0							
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. Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance from junction to lead vertical P.C.B. Mounted, 0.375"(9.5mm)

3.Measure a 1MHz and reverse voltage of 4.0volts

## RATINGS AND CHARACTERISTIC CURVES SR520 THRU SR5A0

FIG.1-FORWARD CURRENT DERATING CURVE

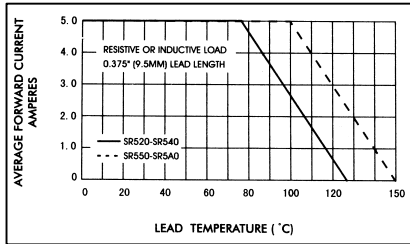


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

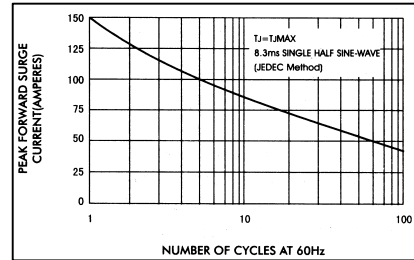


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

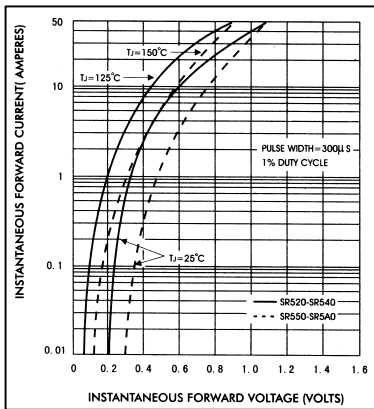


FIG.4-TYPICAL REVERSE CHARACTERISTICS

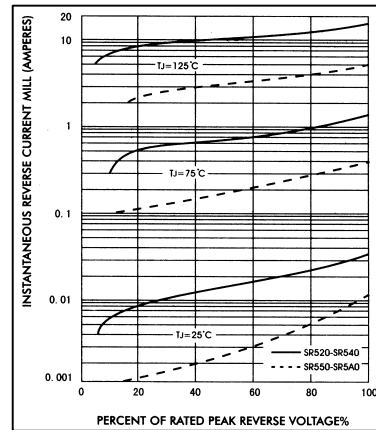


FIG.5-TYPICAL JUNCTION CAPACITANCE

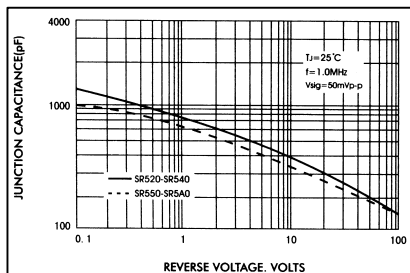


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

