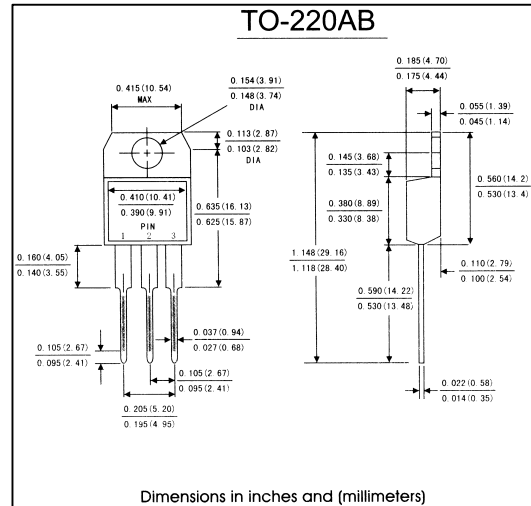


### FEATURES

- . 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
  - . Dual rectifier construction
  - . High temperature soldering guaranteed: 250°C/10 seconds
- 0.25"(6.35mm)from case

### MECHANICAL DATA

- . **Case:** JEDEC DO-220AB molded plastic body
- . **Terminals:** lead solderable per MIL-STD-750,method 2026
- . **Polarity:** As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- . **Mounting Position:** Any
- . **Weight:** 0.08 ounce, 2.24 grams



### 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	SR1020	SR1030	SR1040	SR1050	SR1060	SR1080	SR10A0	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(see Fig.1)	I <sub(av)< sub=""></sub(av)<>	10.0							Amps	
Repetitive peak forward current(square wave, 20KHz) at T <sub>c</sub> =105°C	I <sub>FRM</sub>	20.0							Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150.0							Amps	
Maximum instantaneous forward voltage at 10 A(Note 1)	V <sub>F</sub>	0.70			0.8		0.80	0.85	Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	TA=25°C	1.0							mA
		TA=125°C	30			25				
Typical thermal resistance(Note 2)	R <sub>θ</sub> <sub>JC</sub>	2.5							°C/W	
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 case

## RATINGS AND CHARACTERISTIC CURVES SR1020 THRU SR10A0

FIG.1-FORWARD CURRENT DERATING CURVE

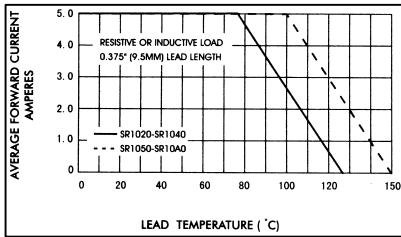


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

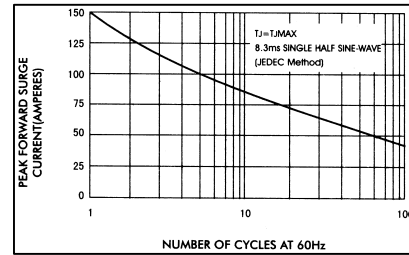


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

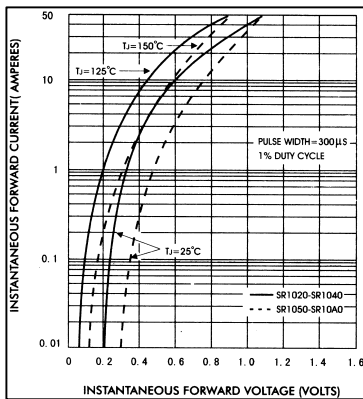


FIG.4-TYPICAL REVERSE CHARACTERISTICS

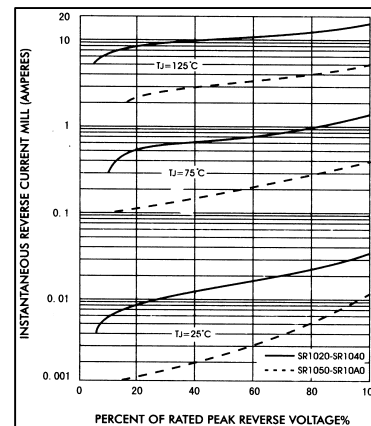


FIG.5-TYPICAL JUNCTION CAPACITANCE

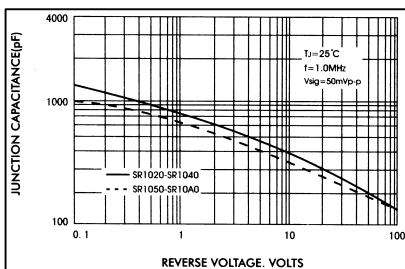


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

