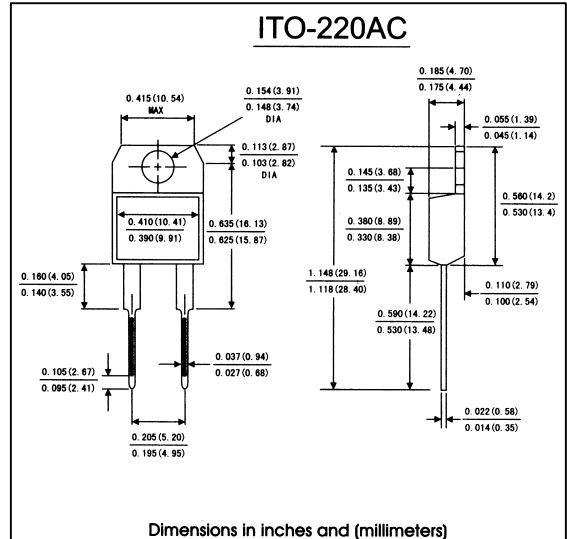


### FEATURES

- . 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
  - . Single rectifier construction
  - . 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
- 0.25"(6.35mm)from case

### MECHANICAL DATA

- . **Case:** JEDEC DO-220AC molded plastic body
- . **Terminals:** lead solderable per MIL-STD-750,method 2026
- . **Polarity:** As marked
- . **Mounting Position:** Any
- . **Weight:** 0.08 ounce, 1.81 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

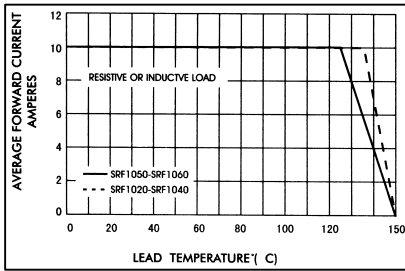
(Ratings at 25°C ambient temperature unless otherwise specified,Single phase,half wave,resistive or inductive) load. For capacitive load,derate by 20%)

	Symbols	SRF1020	SRF1030	SRF1040	SRF1050	SRF1060	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	Volts
Macimum average forward rectified current(see Fig.1)	I <sub>(AV)</sub>	10.0					Amps
Repetitive peak forward current(square wavr, 20KHz) at Tc=105°C	I <sub>FRM</sub>	20.0					Amps
Peak forward surge current 8.3ms singel 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			0.80		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25°C	1.0					mA
	TA=125°C	30					
Typeical thermal resistance(Note 2)	R θ <sub>JC</sub>	5.0					°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150					°C
storage temperature range	T <sub>STG</sub>	-65 to +150					°C

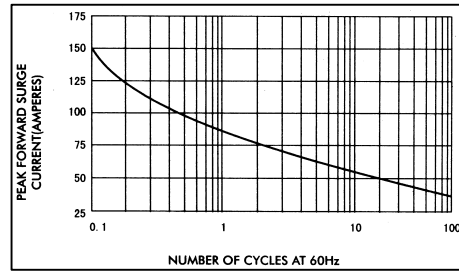
- Notes:** 1. Pulse test: 300 μs pulse width,1% duty cycle  
 2. Thermal resistance from juntion to case

### RATINGS AND CHARACTERISTIC CURVES SRF1020 THRU SRF1620

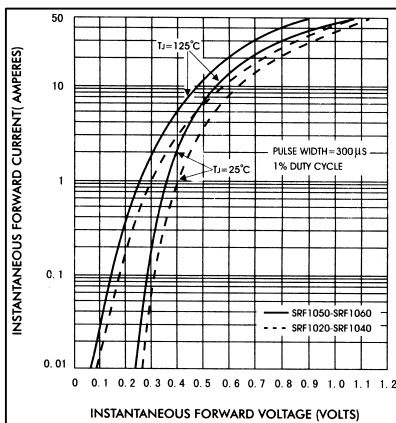
**FIG.1-FORWARD CURRENT DERATING CURVE**



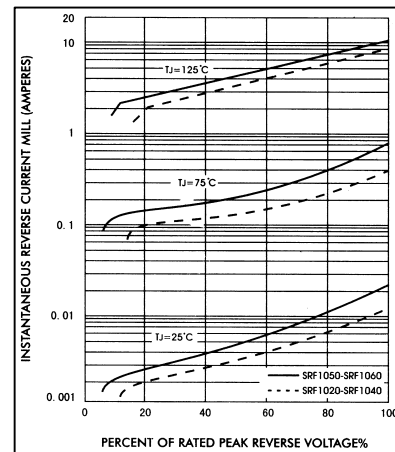
**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



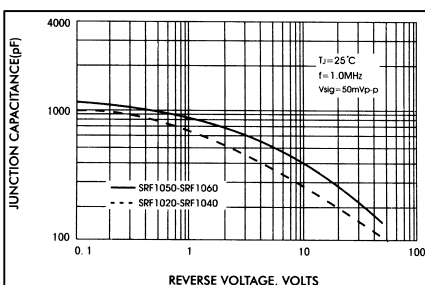
**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE**

