

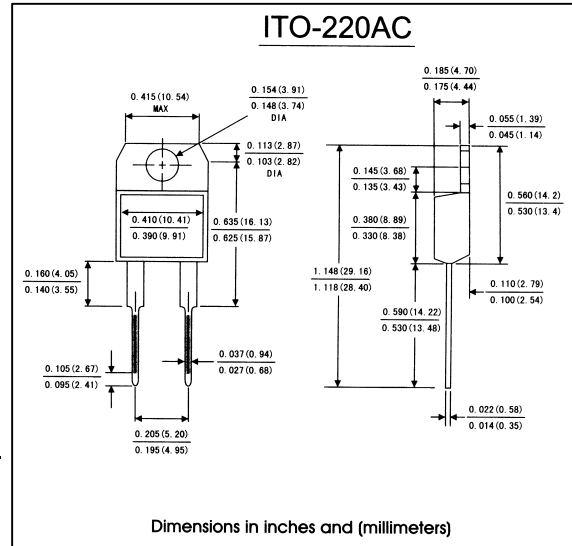
FEATURES

- . 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, 2.24 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	SRF820	SRF830	SRF840	SRF850	SRF860	SRF880	SRF8A0	Units
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current(see Fig.1)	I <sub(av)< sub=""></sub(av)<>	8.0							Amps
Repetitive peak forward current(square wave, 20KHz) at T _c =105°C	I _{FRM}	16.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 7.5 A(Note 1)	V _F	0.65		0.75		0.8	0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25°C	1.0							mA
	TA=125°C	15		50					
Typeical thermal resistance(Note 2)	R θ _{JC}	5.0							°C/W
Operating junction temperature range	T _J	-65 to +125			-65 to +150				°C
storage temperature range	T _{STG}	-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 SRF820 THRU SRF8A0(SINGLE CHIP)

FIG.1-FORWARD CURRENT DERATING CURVE

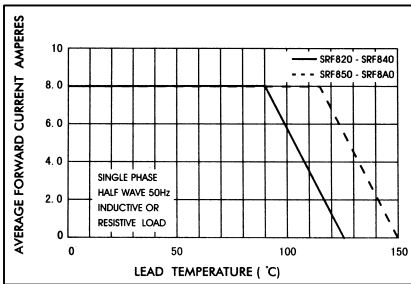


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

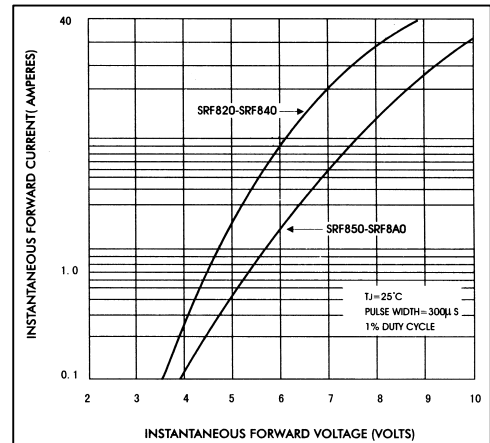


FIG.4-TYPICAL JUNCTION CAPACITANCE

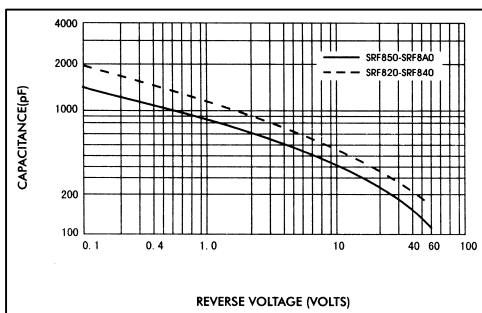


FIG.3-TYPICAL REVERSE CHARACTERISTICS

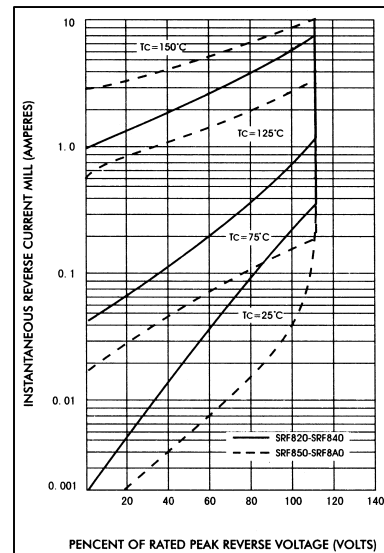


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

