



CHENYI ELECTRONICS

SRF1020 THRU SRF1620(SINGLE CHIP)

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 60 Volts

Forward Current - 10.0Amperes

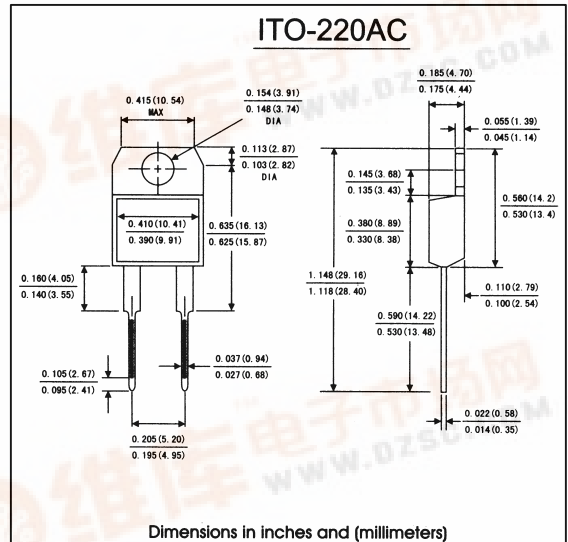
FEATURES

- 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 _{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	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 _c =105°C	I _{FRM}	20.0					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 10 A(Note 1)	V _F	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					
Typical thermal resistance(Note 2)	R _{θJC}	5.0					°C/W
Operating junction temperature range	T _J	-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



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RATINGS AND CHARACTERISTIC CURVES SRF1020 THRU SRF1620

FIG.1-FORWARD CURRENT DERATING CURVE

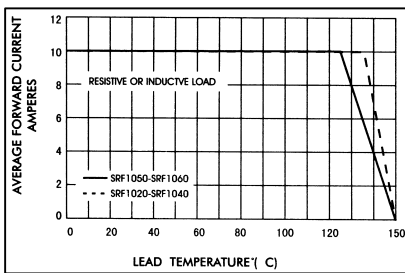


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

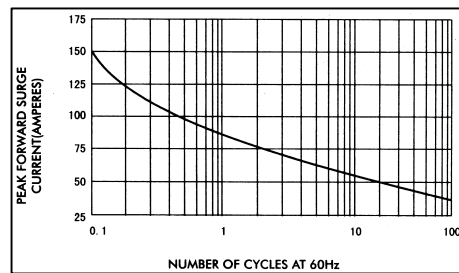


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

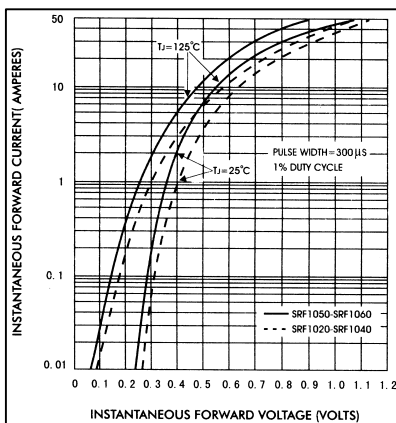


FIG.4-TYPICAL REVERSE CHARACTERISTICS

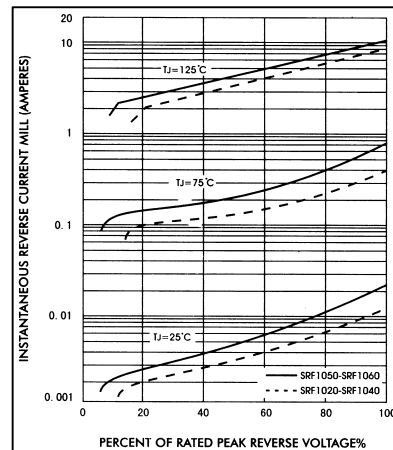


FIG.5-TYPICAL JUNCTION CAPACITANCE

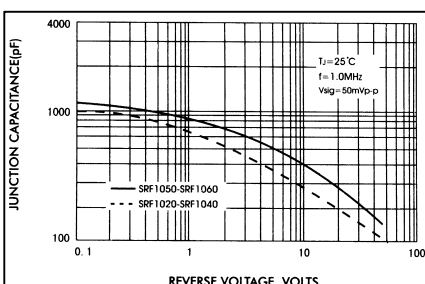


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

