CE

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 sliicon junction ,majority carriet conduction

. Guard ring for overcoltage protection

. Low power loss,high efficiency

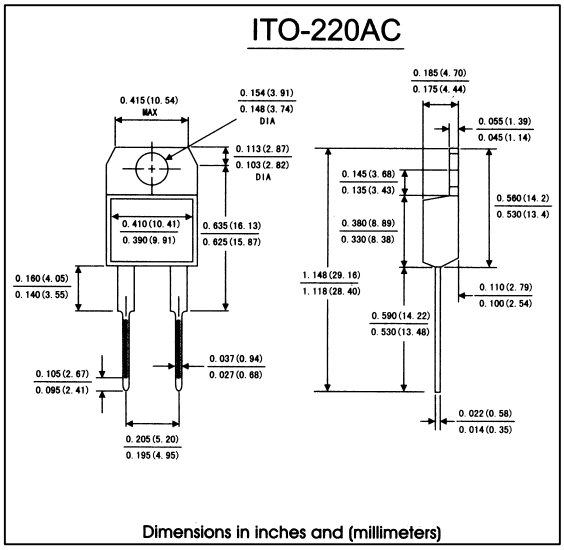
. High current capability ,Low forward voltage drop

. Single rectifier construction

. High surge capability

. For use in low voltage ,high frequency inverters,
free wheeling , and polarilty protection applications

. High temperature soldering guaranteed: 250℃/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℃ 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
Macimum average forward rectified current(see Fig.1)	$I_{(AV)}$	10.0					Amps
Repetitive peak forward current(square wavr, 20KHz) at Tc=105℃	I_{FRM}	20.0					Amps
Peak forward surge current 8.3ms singel 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℃	I_R	1.0					mA
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) TA=125℃	I_R	30					mA
Typeical thermal resistance(Note 2)	$R\theta_{JC}$	5.0					℃/W
Operating junction temperature range	T_J	-65 to +150					℃
storage temperature range	T_{STG}	-65 to +150					℃

Notes: 1. Pulse test: 300μs pulse width,1% duty cycle

2.Thermal resistance from juntion to case

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RATINGS AND CHARACTERISTIC CURVES SRF1020 THRU SRF1620

FLG.1-FORWARD CURRENT DERATING CURVE

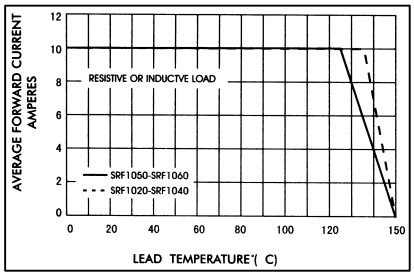

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

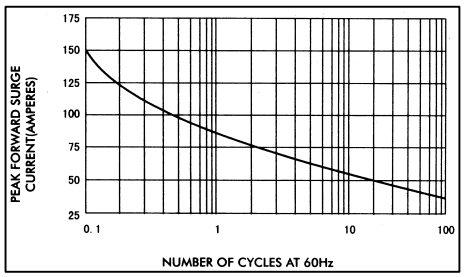

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

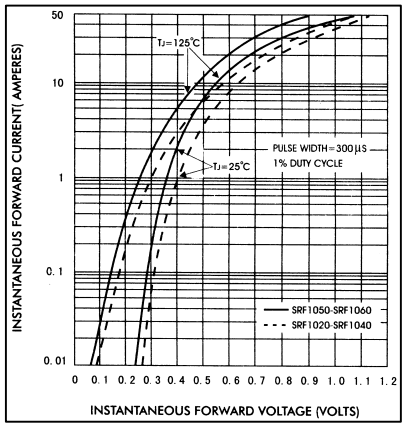

FIG.4-TYPICAL REVERSE CHARACTERISTICS

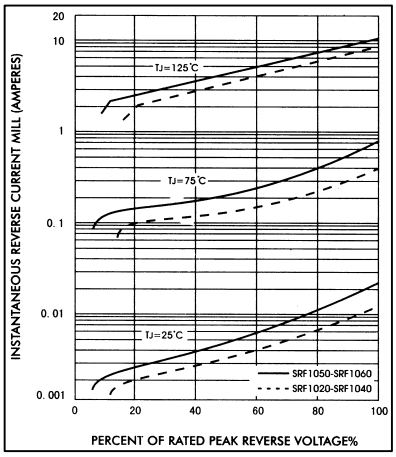

FIG.5-TYPICAL JUNCTION CAPACITANCE

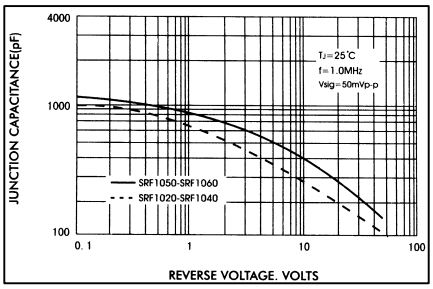

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE