

SRF1020 THRU SRF10A0

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 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
- . High surge capability
- . For use in low voltage ,high frequency inverters, free wheeling , and polarilty 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

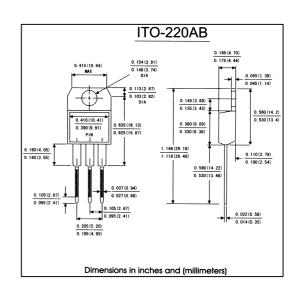
. Terminals: lead solderable per MIL-STD-750, method 2026

. 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		VRRM	20	30	40	50	60	80	100	Volts
Maximum RMS voltage		VRMS	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage		VDC	20	30	40	50	60	80	100	Volts
Macimum average forward rectified current(see Fig.1)		I(AV)	10.0							Amps
Repetitive peak forward current(square wavr, 20KHz) at Tc=105℃		IFRM	20.0							Amps
Peak forward surge current 8.3ms singel half sine-wave superimposed on rated load (JEDEC method)		IFSM	150.0							Amps
Maximum instantaneous forward voltage at 10 A(Note 1)		VF		0.70 0.8 0.80		0.85	Volts			
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25℃ TA=125℃	lr		1.0 50 25						mA
Typeical thermal resistance(Note 2)		RθJc	2.5							°C/W
Operating junction temperature range		TJ	-65 to +125 -65 to +150					$^{\circ}$		
storage temperature range		Тѕтс	-65 to +150							$^{\circ}$

Notes: 1. Pulse test: 300 $\,\mu$ s $\,$ pulse width,1% duty cycle

2. Thermal resistance from juntion to case



SRF1020 THRU SRF10A0

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 10.0Amperes

RATINGS AND CHARACTERISTIC CURVES SRF1020 THRU SRF10A0

FLG.1-FORWARD CURRENT DERATING CURVE

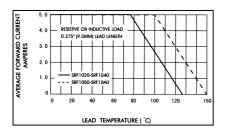


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

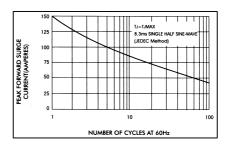


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

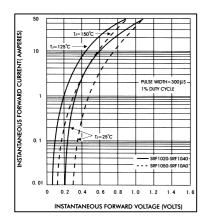


FIG.4-TYPICAL REVERSE CHARACTERISTICS

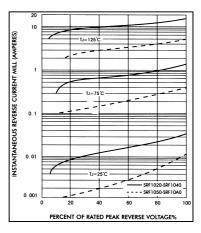


FIG.5-TYPICAL JUNCTION CAPACITANCE

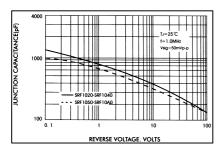


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

