



## SCHTTKY BARRIER RECTIFIER

SRF1020 THRU SRF10100

VOLTAGE RANGE

20 to 100 Volts

CURRENT

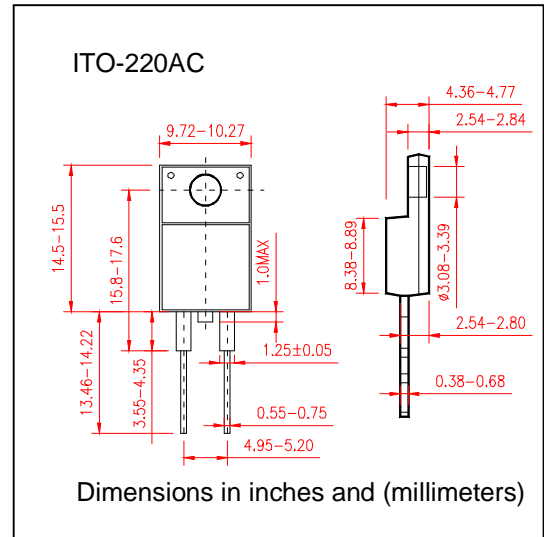
10.0 Amperes

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: ITO-220AC full molded plastic package
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: as marked
- Mounting Position: Any
- Weight: 0.08ounces, 2.24 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	SRF 1020	SRF 1030	SRF 1035	SRF 1040	SRF 1045	SRF 1050	SRF 1060	SRF 1080	SRF 10100	SRF 10150	SRF 10200	UNIT	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	35	40	45	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	21	25	28	32	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	35	40	45	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current At $T_c=100^\circ\text{C}$	$I_{(AV)}$	10.0											Amps	
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150											Amps	
Maximum Forward Voltage at 10.0A per element	$V_F$	0.65					0.75			0.85				Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_c = 25^\circ\text{C}$	0.5											mA	
	$T_c = 100^\circ\text{C}$	50												
Typical Junction Capacitance(Note2)	$C_J$	500											pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	4.0											$^\circ\text{C}/\text{W}$	
Operating Storage Temperature Range	$T_J T_{STG}$	(-55 to +150)											$^\circ\text{C}$	

#### Notes:

1. Thermal Resistance Junction to CASE
2. Measured at  $V_R=4\text{v}$  and  $f=1\text{MHz}$



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CURRENT 10.0 Ampere

## RATING AND CHARACTERISTIC CURVES SRF1020 THRU SRF10100

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

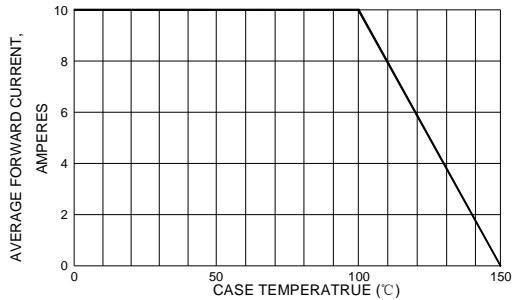


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

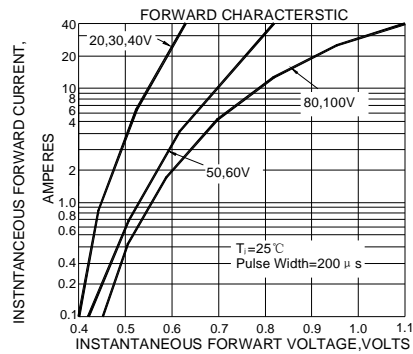


FIG.2-TYPICAL REVERSE CHARACTERISTICS

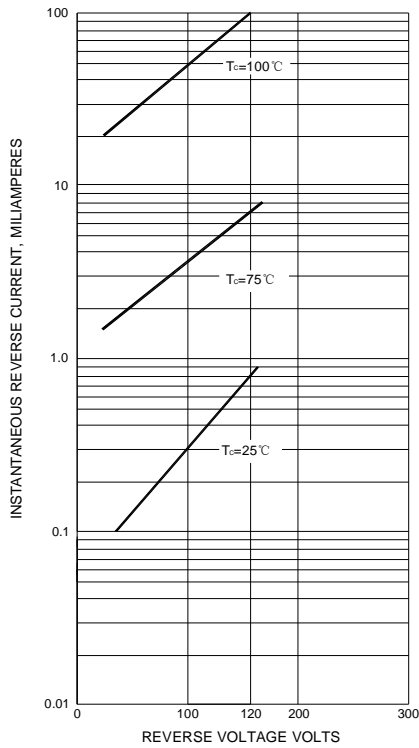


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

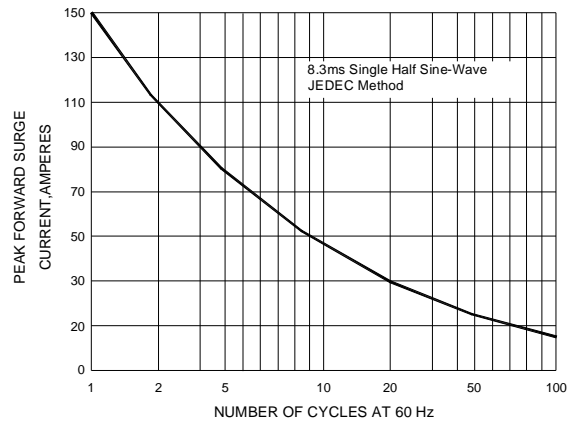


FIG.5-TYPICAL JUNCTION CAPACITANCE

