



## SCHOTTKY BARRIER RECTIFIER

SR3020P THRU SR30100P

VOLTAGE RANGE

20 to 100 Volts

CURRENT

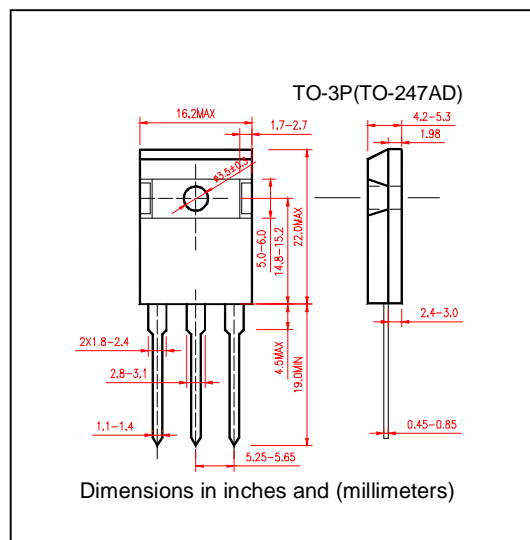
30.0 Amperes

### 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: TO-3P molded Plastic
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: as marked
- Mounting position: Any
- Weight: 0.2ounce, 5.6 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	SR 3020P	SR 3030P	SR 3035P	SR 3040P	SR 3045P	SR 3050P	SR 3060P	SR 3080P	SR30 100P	SR30 150P	SR30 200P	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 $T_C=110^\circ\text{C}$	$I_{(AV)}$	30.0											Amps	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	250											Amps	
Maximum Forward Voltage at 15.0A per element	$V_F$	0.65			0.72			0.75			0.85			Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_C = 25^\circ\text{C}$	1.0											mA	
	$T_C = 100^\circ\text{C}$	100												
Typical Junction Capacitance Range	$C_J$	500											pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.2											$^\circ\text{C}/\text{W}$	
Operating Storage Temperature Range	$T_J T_{STG}$	(-55 to +150)											$^\circ\text{C}$	

#### Notes:

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



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## RATINGS AND CHARACTERISTIC CURVES SRF1620 THRU SRF16100

FIG.1-FORWARD CURRENT DERATING CURVE

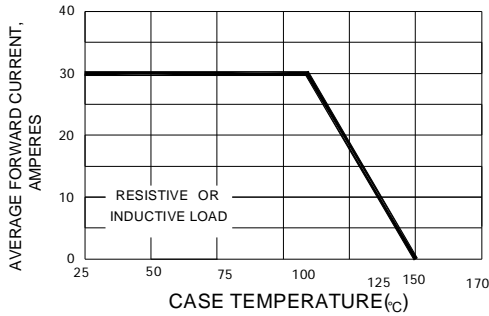


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

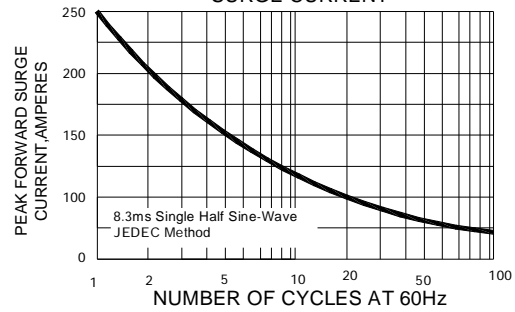


FIG.3-TYPICAL REVERSE CHARACTERISTICS

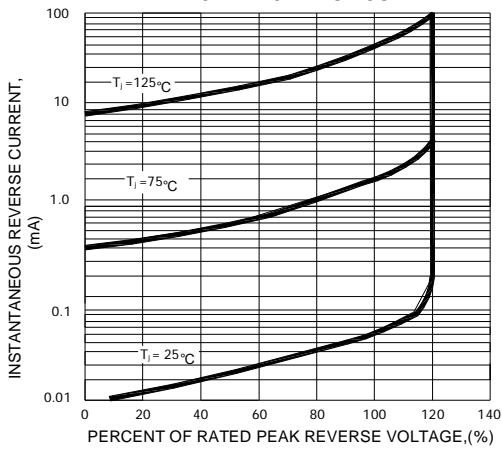


FIG.4-TYPICAL FORWARD CHARACTERISTICS

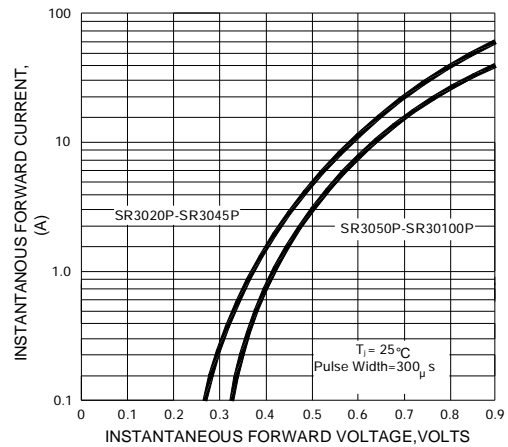


FIG.5-TYPICAL JUNCTION CAPACITANCE

