

SR3020C THRU SR3060C

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 30 Amperes

FEATURES

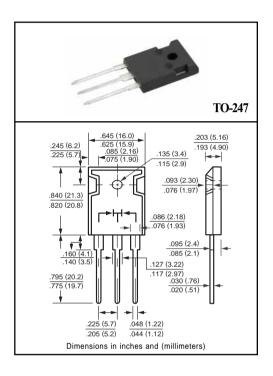
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capabitity
- * High reliability

MECHANICAL DATA

- * Case: To-247 molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any * Weight: 5.60 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	SR3020C	SR3030C	SR3035C	SR3040C	SR3045C	SR3050C	SR3060C	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	35	40	45	50	60	Volts
Maximum RMS Voltage	VRMS	14	21	25	28	32	35	42	Volts
Maximum DC Blocking Voltage	VDC	20	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current	Io	lo 30.0							Amps
at Derating Case Temperature	10	30.0							
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	300							Amps
Typical Thermal Resistance (Note 1)	RθJC	1.4							°C/W
Operating Temperature Range	TJ	-65 to + 125 -65 to + 150					+ 150	٥C	
Storage Temperature Range	Тѕтс	-65 to + 150							٥C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

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CHARACTERISTICS		SYMBOL	SR3020C	SR3030C	SR3035C	SR3040C	SR3045C	SR3050C	SR3060C	UNITS
Maximum Instantaneous Forward Voltage at 15.0A DC		VF	.65 .75					75	Volts	
Maximum Average Reverse Current	@Tc = 25°C	10	10							mAmps
at Rated DC Blocking Voltage	@Tc = 100°C	lR IR	100							mAmps

NOTES: 1. Thermal Resistance Junction to Case.

2. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (SR3020C THRU SR3060C)

A Single Phase Half Wave 60Hz Inductive or Resistive Load

CASE TEMPERATURE, (°C)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

FIG. 2 - TYPICAL REVERSE CHARACTERISTICS INSTANTANEOUS REVERSE CURRENT, (mA) $T_{C} = 125^{\circ}$ 1.0 TC .01 ■■■ SR3050C~SR3060C .001 20 80 40 60 100 120 140 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT 300 PEAK FORWARD SURGE CURRENT, (A) 8.3ms Single Half Sine-Wave (JEDED Method) 250 200 150 100 50 0 2 50 1 5 10 20 100 NUMBER OF CYCLES AT 60Hz

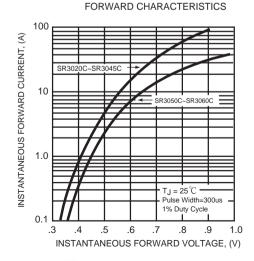


FIG. 4 - TYPICAL INSTANTANEOUS

