

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 50 Volts CURRENT 50 Amperes

FEATURES

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

MECHANICAL DATA

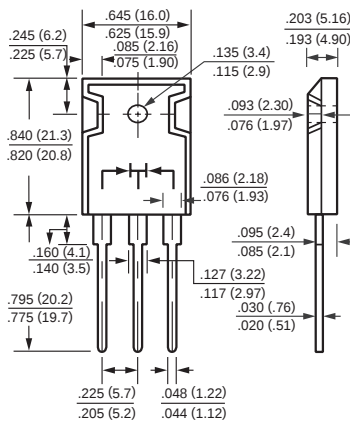
- * Case: To-247 molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 5.1 grams

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%.



TO-247



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

RATINGS	SYMBOL	SR5020C	SR5030C	SR5035C	SR5040C	SR5045C	SR5050C	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	35	40	45	50	Volts
Maximum RMS Voltage	VRMS	14	21	25	28	32	35	Volts
Maximum DC Blocking Voltage	VDC	20	30	35	40	45	50	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	IO	50						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	400						Amps
Typical Thermal Resistance (Note 1)	RθJC	1.0						°C/W
Operating Temperature Range	TJ	-65 to + 125					-65 to + 150	°C
Storage Temperature Range	TSTG	-65 to + 150						°C

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

CHARACTERISTICS	SYMBOL	SR5020C	SR5030C	SR5035C	SR5040C	SR5045C	SR5050C	UNITS
Maximum Instantaneous Forward Voltage at 25.0A DC	VF	.65					.75	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	IR	10						mAmps
		100						mAmps

NOTES : 1. Thermal Resistance Junction to Case.
2. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (SR5020C THRU SR5050C)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

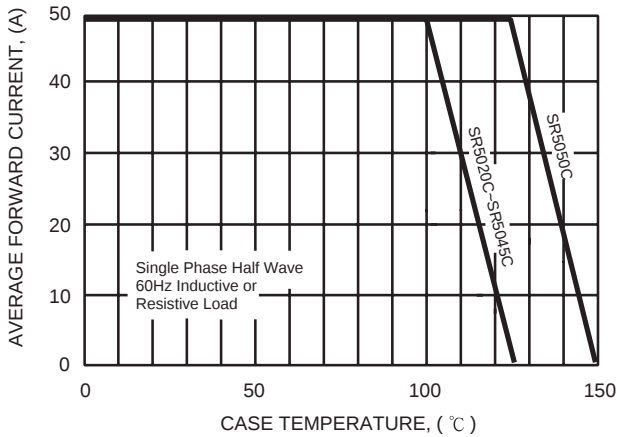


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

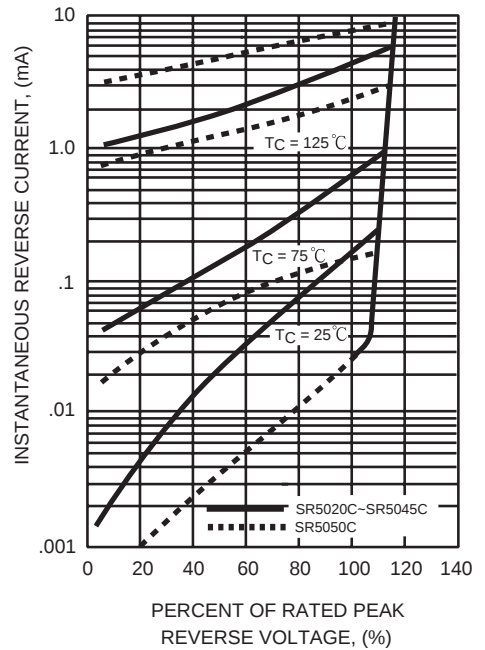


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

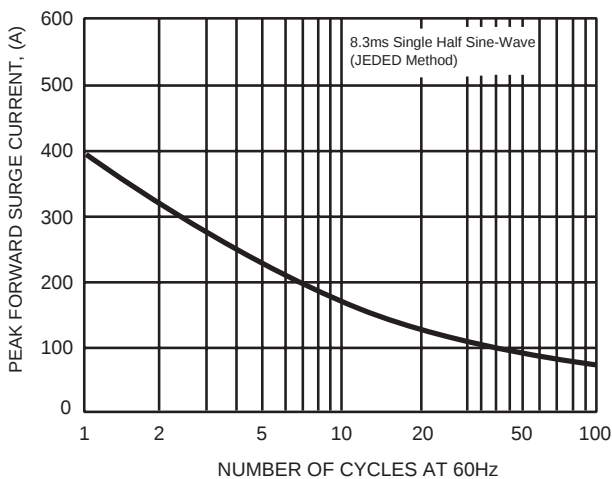


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

