

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 50 Volts CURRENT 50 Amperes

FEATURES

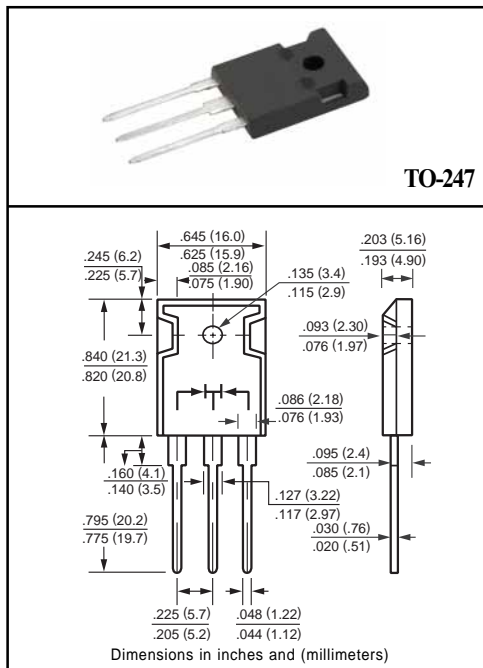
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: To-247 molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * 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%.



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

RATINGS	SYMBOL	SR5020C	SR5030C	SR5035C	SR5040C	SR5045C	SR5050C	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	35	40	45	50	Volts
Maximum RMS Voltage	V _{RMS}	14	21	25	28	32	35	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	35	40	45	50	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I _O	50						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	400						Amps
Typical Thermal Resistance (Note 1)	R _{θJC}	1.0						°C/W
Operating Temperature Range	T _J	-65 to + 125					-65 to + 150	°C
Storage Temperature Range	T _{STG}	-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	V _F	.65						.75	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I _R	@ T _C = 25°C 10				@ T _C = 100°C 100			mAmps
								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

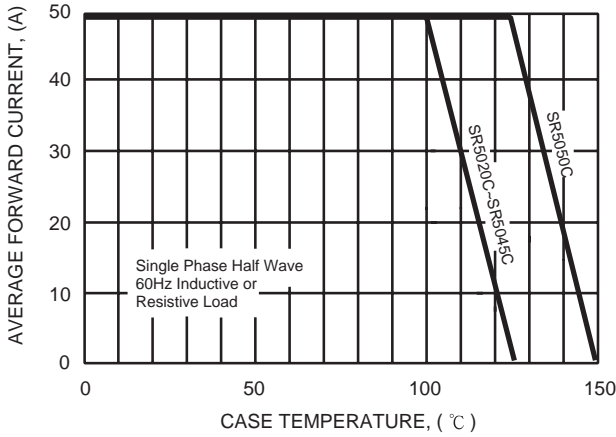


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

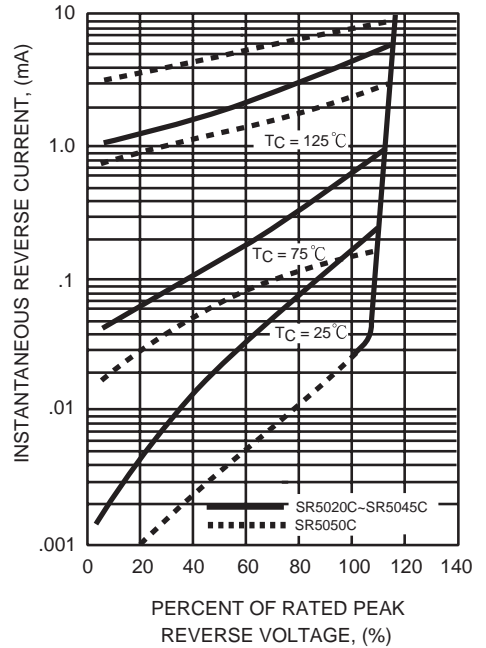


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

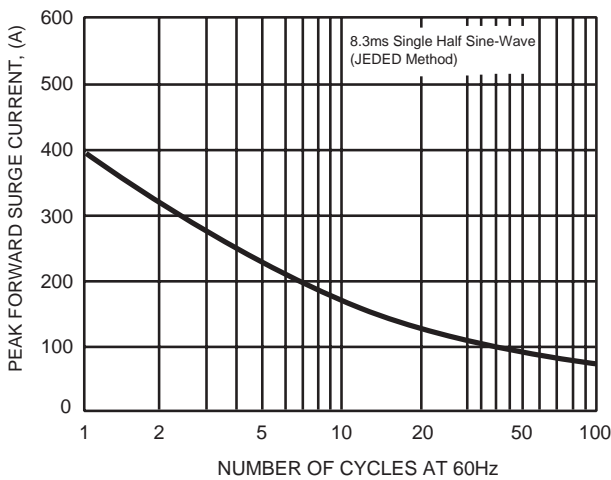


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

