RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

SR3020C THRU SR3060C

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 30 Amperes

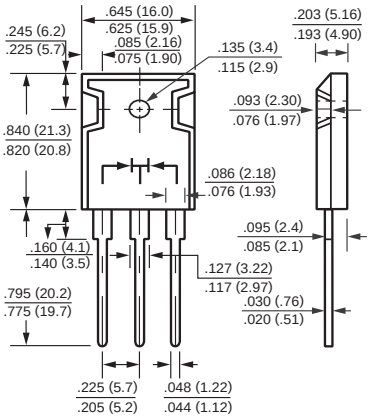
FEATURES

* 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

TO-247



Dimensions in inches and (millimeters)

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 T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	SR3020C	SR3030C	SR3035C	SR3040C	SR3045C	SR3050C	SR3060C	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	Volts
Maximum RMS Voltage	V_{RMS}	14	21	25	28	32	35	42	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	30.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.4							°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 T_A = 25°C unless otherwise noted)

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

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

2001-5

RATING AND CHARACTERISTIC CURVES (SR3020C THRU SR3060C)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

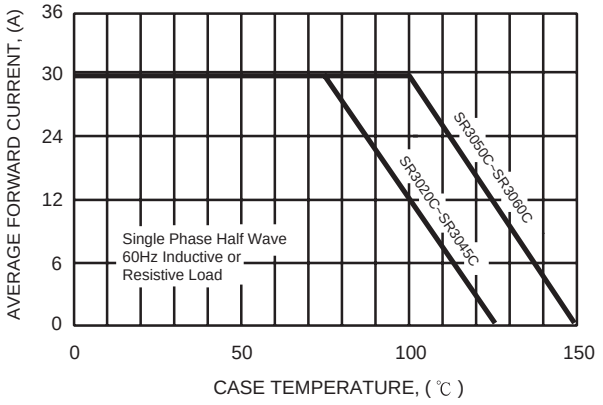


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

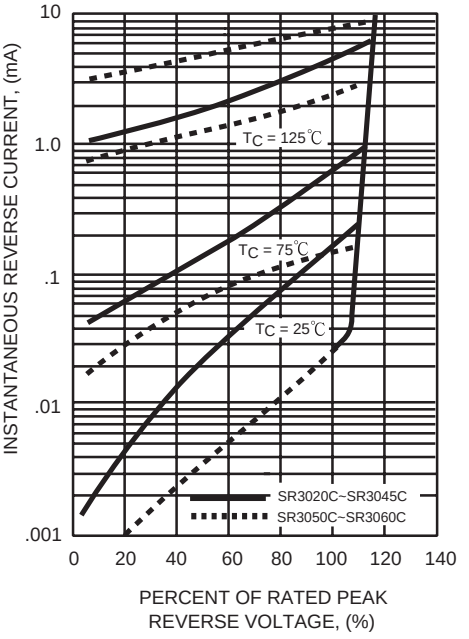


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

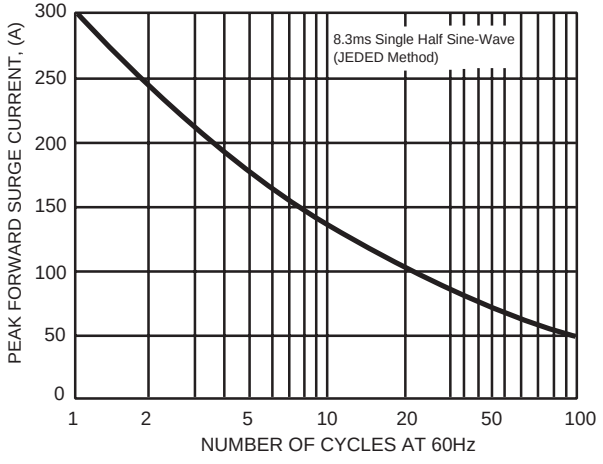


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS