



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**SR5020
THRU
SR5060**

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 60 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: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 5.6 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

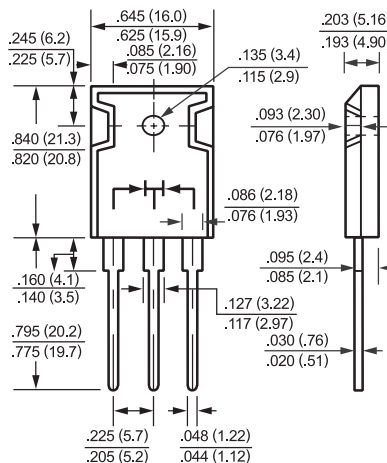
Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



TO-3P



Dimensions in inches and (millimeters)

		SYMBOL	SR5020	SR5030	SR5040	SR5050	SR5060	UNITS
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage		V _{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage		V _{DC}	20	30	40	50	60	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
Maximum Instantaneous Forward Voltage at 25.0A DC		V _F	.65			.75		Volts
Maximum DC Reverse Current	@ T _C = 25°C	I _R	10					mAmps
at Rated DC Blocking Voltage	@ T _C = 100°C		100					mAmps
Typical Thermal Resistance (Note 1)		R _{θJC}	1.2					°C/W
Operating Temperature Range		T _J	-65 to + 150					°C
Storage Temperature Range		T _{STG}	-65 to + 150					°C

NOTES : 1. Thermal Resistance Junction to Case per leg.

2. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (SR5020 THRU SR5060)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

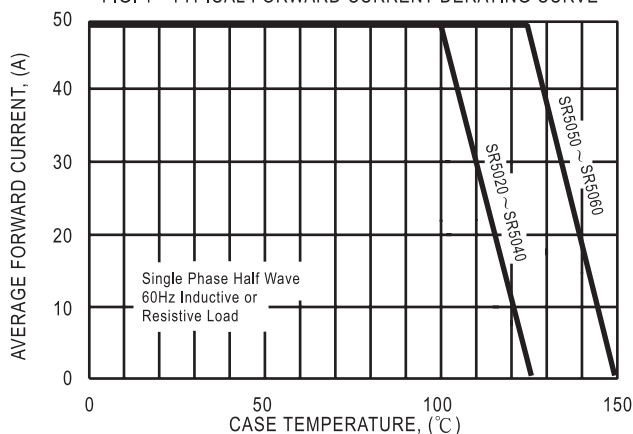


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

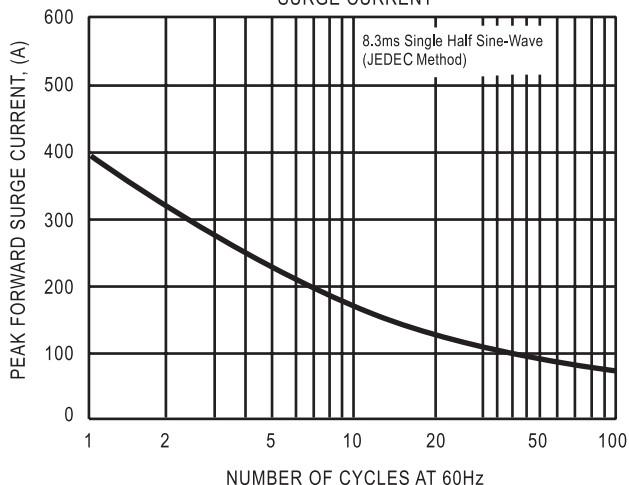


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

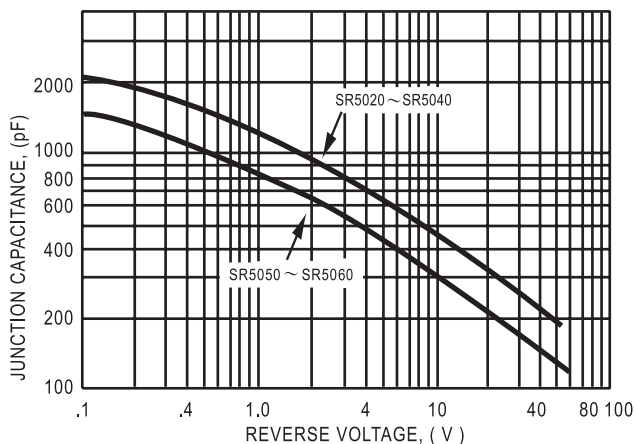


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

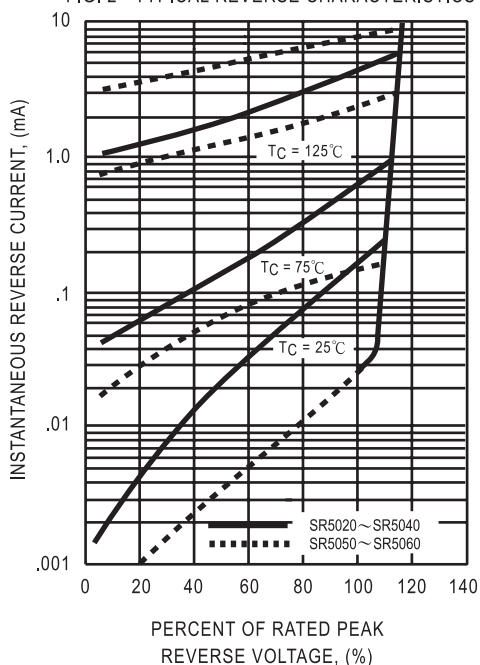
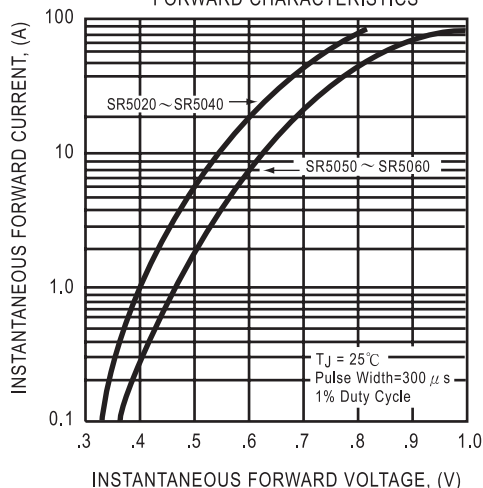


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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