

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 8.0 Amperes

FEATURES

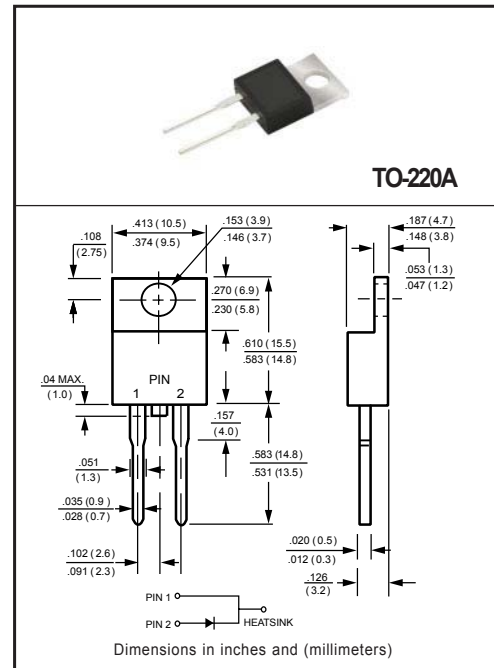
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: To-220A molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 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 (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SR820	SR830	SR835	SR840	SR845	SR850	SR860	SR880	SR8100	SR8150	SR8200	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V _{RMS}	14	21	25	28	32	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I _O	8.0											Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150											Amps
Typical Thermal Resistance (Note 1)	R _{θJC}	2.5											°C/W
	R _{θJA}	60											
Typical Junction Capacitance (Note 3)	C _J	700					450					pF	
Operating Temperature Range	T _J	150											°C
Storage Temperature Range	T _{STG}	-55 to + 150											°C

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

CHARACTERISTICS		SYMBOL	SR820	SR830	SR835	SR840	SR845	SR850	SR860	SR880	SR8100	SR8150	SR8200	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC		V _F	.65						.75		.85				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	I _R	0.2												mA
	@T _A = 100°C		2												mA

- NOTES : 1. Thermal Resistance : Heat-sink mounted.
2. Suffix "R" for Reverse Polarity.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
4. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2006-11

RATING AND CHARACTERISTICS CURVES (SR820 THRU SR8200)

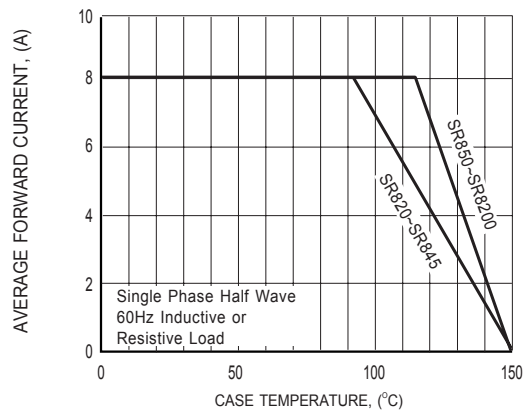


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

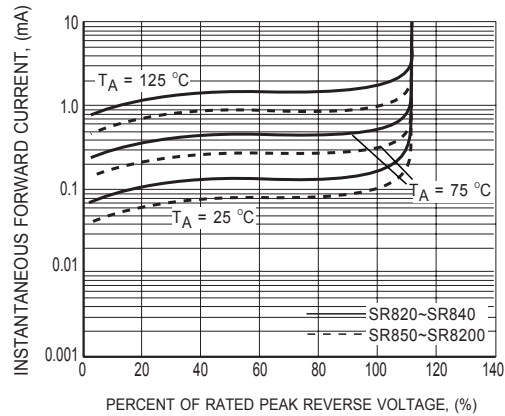


FIG.2 TYPICAL REVERSE CHARACTERISTICS

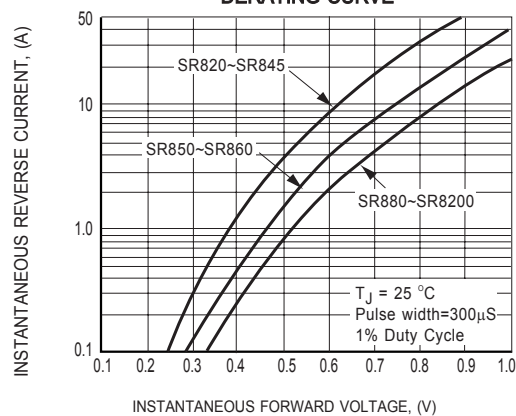


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

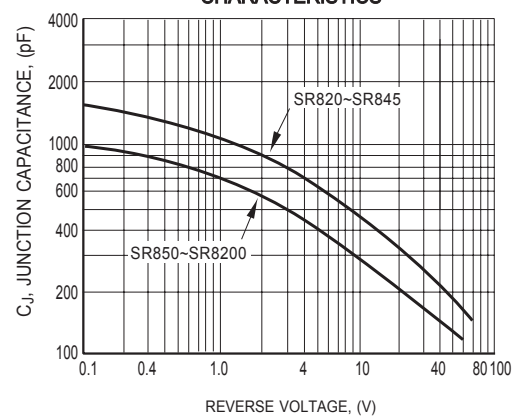


FIG.4 TYPICAL JUNCTION CAPACITANCE

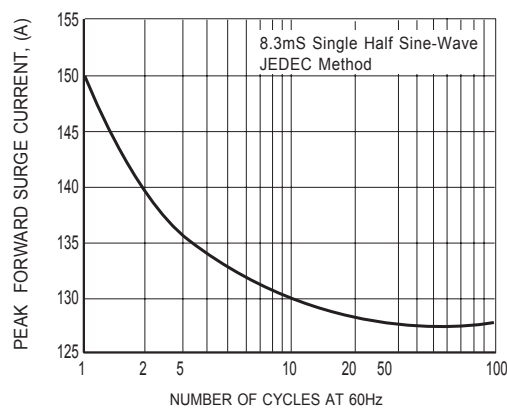


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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