

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 8.0 Amperes

FEATURES

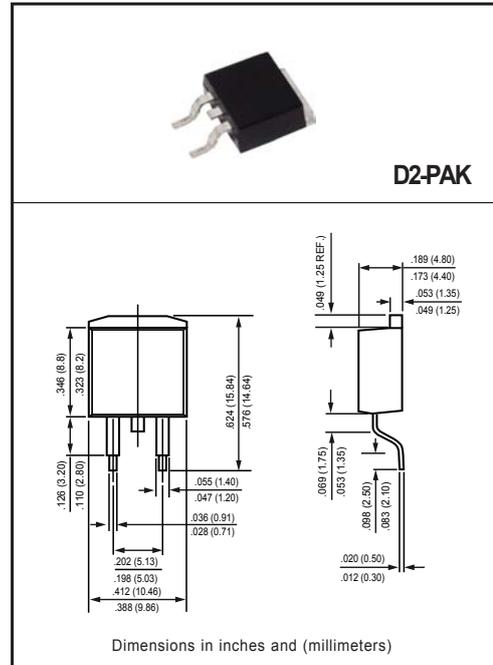
- * High reliability
- * Low switching loss
- * Low forward voltage drop
- * High current capability
- * High switching capability

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * Case: Molded plastic
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting: position: Any
- * Weight: 1.35 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	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	SR880S	SR8100S	SR8150S	SR8200S	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 _{θJA}	60											°C/W	
	R _{θJC}	3												
Typical Junction Capacitance (Note 2)	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	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	SR880S	SR8100S	SR8150S	SR8200S	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC	V _F	.65						.75		.85				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I _R	@T _A = 25°C						0.2						mA
		@T _A = 100°C						2						mA

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

RATING AND CHARACTERISTICS CURVES (SR820S THRU SR8200S)

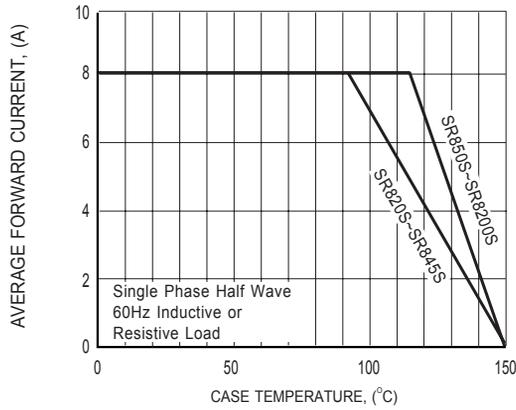


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

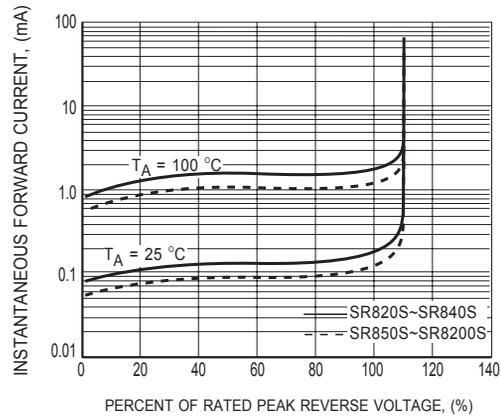


FIG.2 TYPICAL REVERSE CHARACTERISTICS

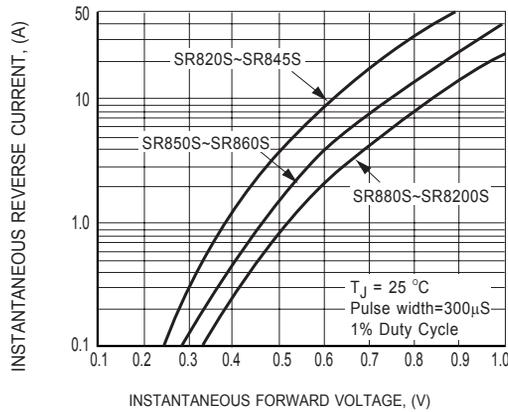


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

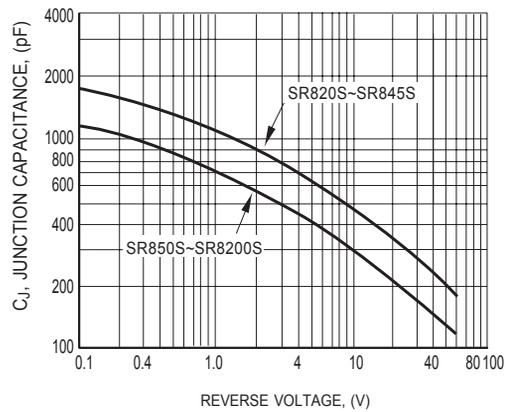


FIG.4 TYPICAL JUNCTION CAPACITANCE

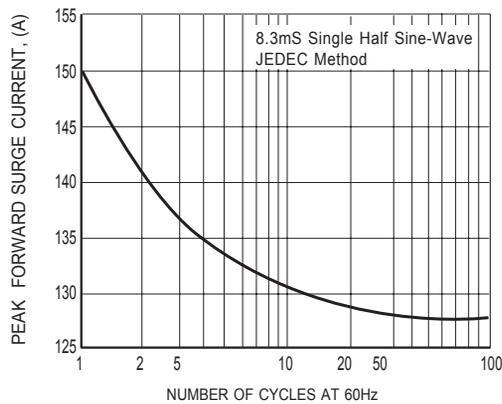


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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