

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 200 Volts CURRENT 8.0 Amperes**

**FEATURES**

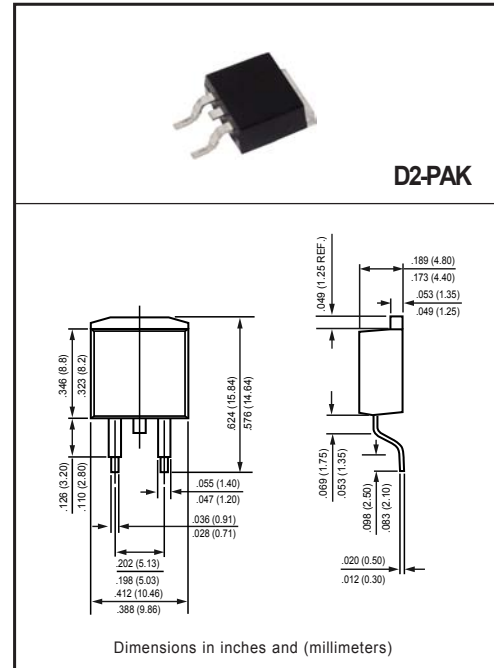
- \* High reliability
- \* Low switching loss
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability

**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)**

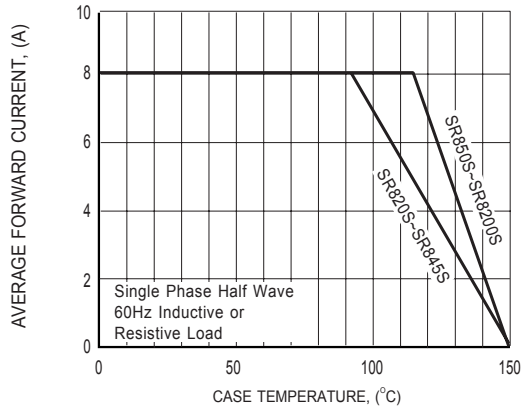
RATINGS	SYMBOL	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	SR880S	SR8100S	SR8150S	SR8200S	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	35	40	45	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	25	28	32	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	35	40	45	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at Derating Case Temperature	I <sub>O</sub>	8.0											Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150											Amps	
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	60											°C/W	
	R <sub>θJC</sub>	3												
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	700					450							pF
Operating Temperature Range	T <sub>J</sub>	150											°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150											°C	

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

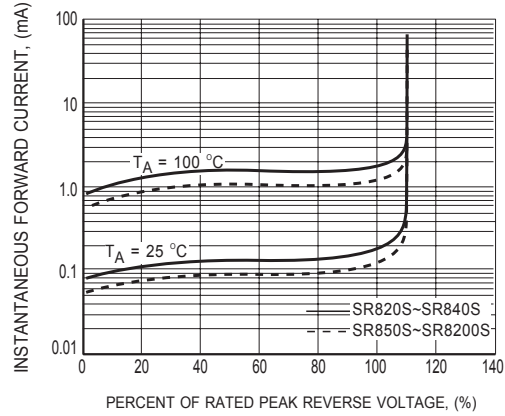
CHARACTERISTICS	SYMBOL	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	SR880S	SR8100S	SR8150S	SR8200S	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC	V <sub>F</sub>	.65						.75		.85				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C						0.2						mA
		@T <sub>A</sub> = 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.

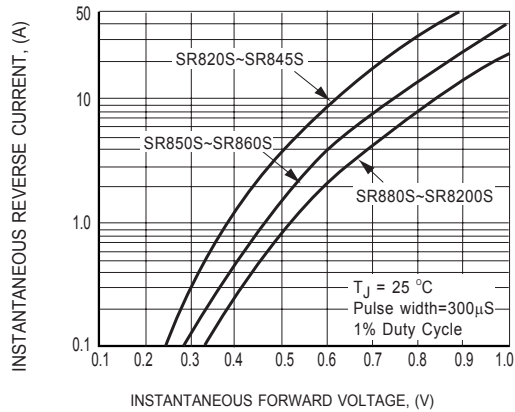
# RATING AND CHARACTERISTICS CURVES ( SR820S THRU SR8200S )



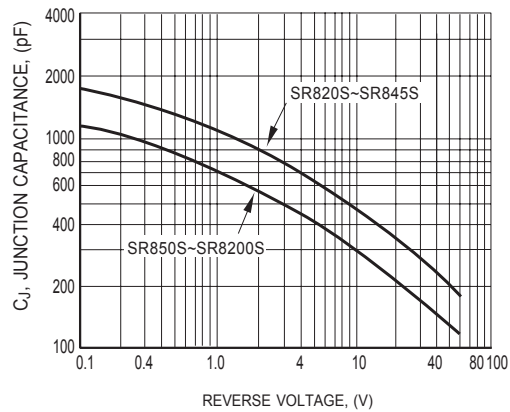
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



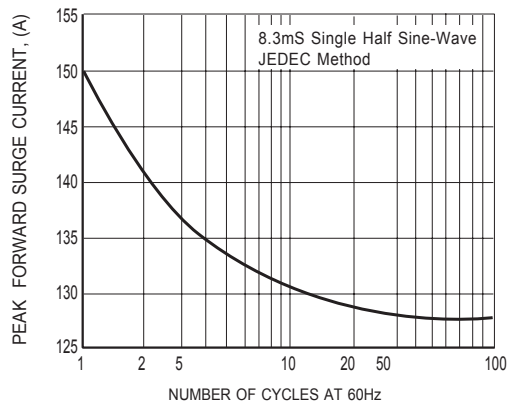
**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

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