

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 60 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**

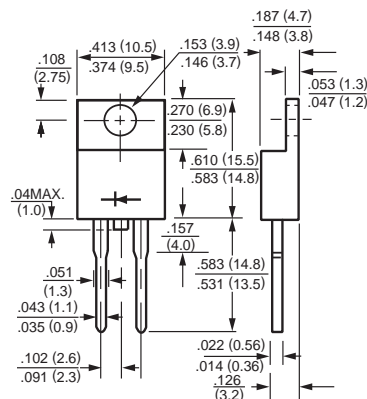
- \* Case: To-220A molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 2.24 grams

**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%.



**TO-220A**



**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	SR820	SR830	SR835	SR840	SR845	SR850	SR860	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	35	40	45	50	60	Volts
Maximum RMS Voltage	VRMS	14	21	25	28	32	35	42	Volts
Maximum DC Blocking Voltage	VDC	20	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	IO	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150							Amps
Typical Thermal Resistance (Note 1)	RθJC	2.5							°C/W
Typical Junction Capacitance (Note 3)	CJ	700					450		pF
Operating Temperature Range	TJ	-65 to + 125					-65 to + 150		°C
Storage Temperature Range	TSTG	-65 to + 150							°C

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

CHARACTERISTICS	SYMBOL	SR820	SR830	SR835	SR840	SR845	SR850	SR860	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC	VF	.65						.75		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	IR	@Tc = 25°C				5.0			mAmps	
		@Tc = 100°C				50			mAmps	

NOTES : 1. Thermal Resistance Junction to Case.  
2. Suffix "R" for Reverse Polarity.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

# RATING AND CHARACTERISTIC CURVES ( SR820 THRU SR860 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

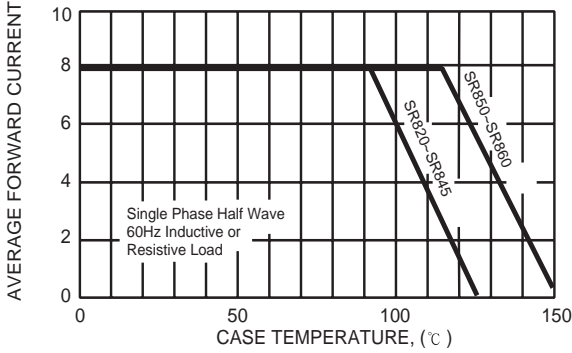


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

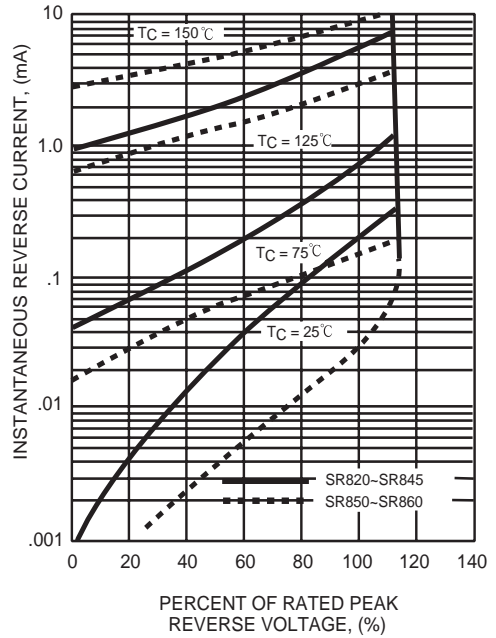


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

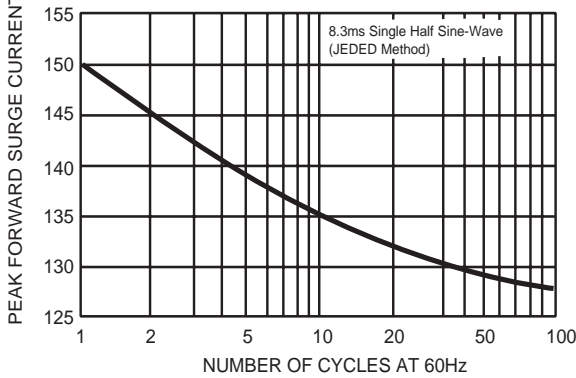


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

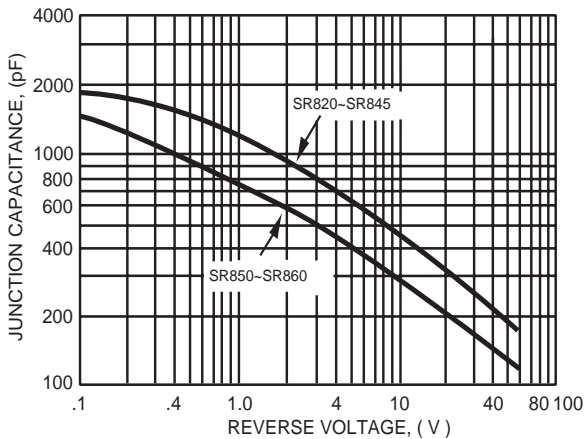


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

