

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

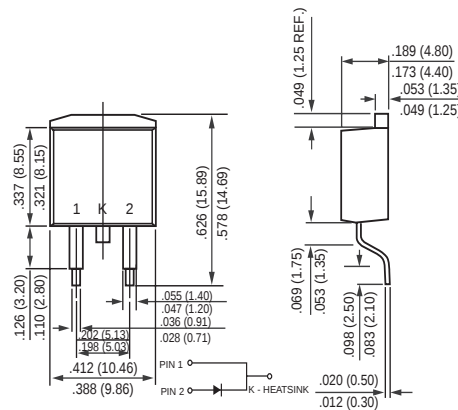
- * Case: D2PAK molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.2 grams

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%.



D2PAK



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	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	-55 to + 150							°C
Storage Temperature Range	TSTG	-55 to + 150							°C

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

CHARACTERISTICS		SYMBOL	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC		V _F	.65						.75	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T _C = 25°C	I _R	5.0						mAmps	
	@T _C = 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 (SR820S THRU SR860S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

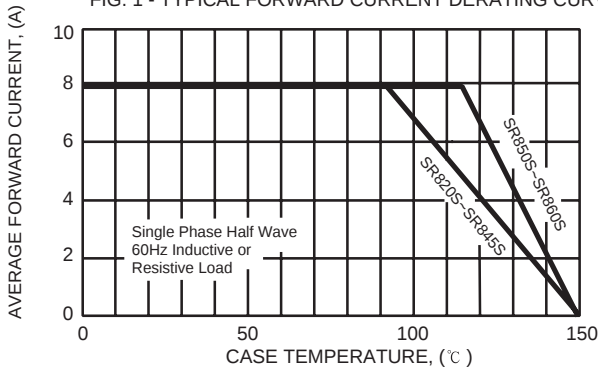


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

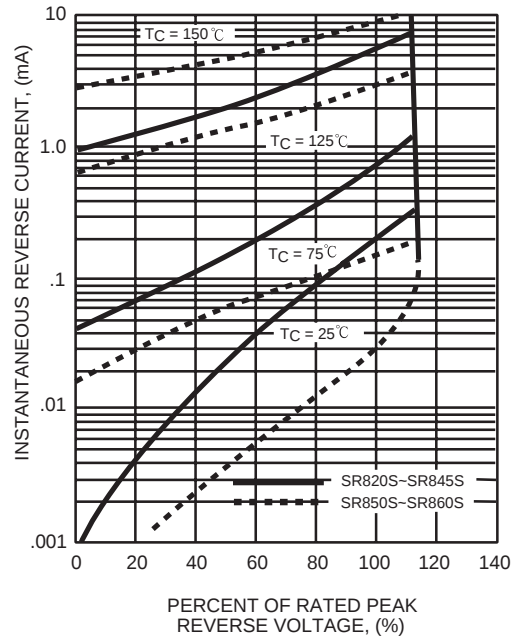


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

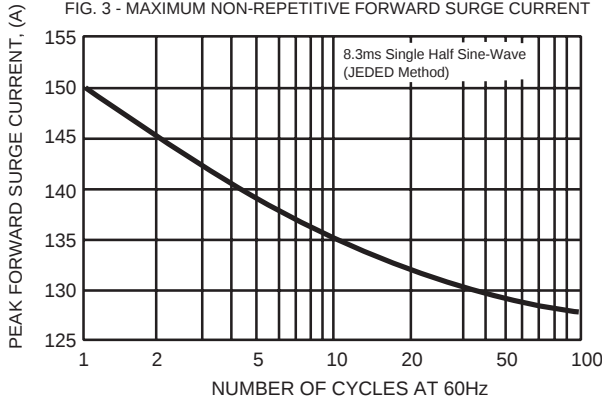


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

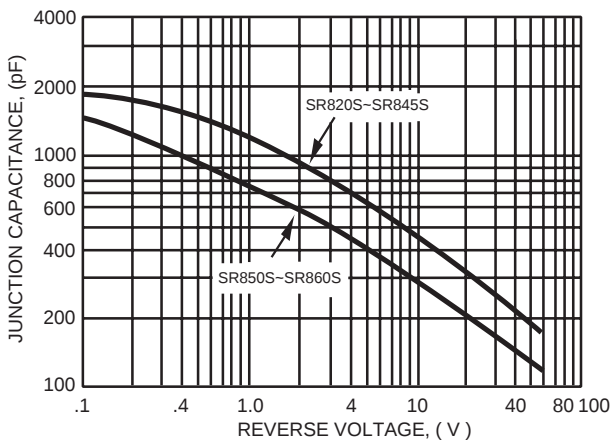
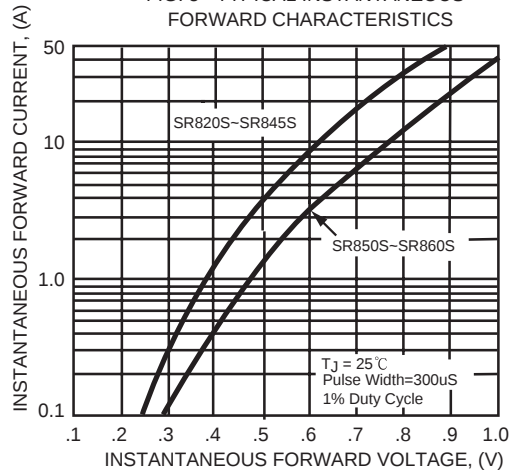
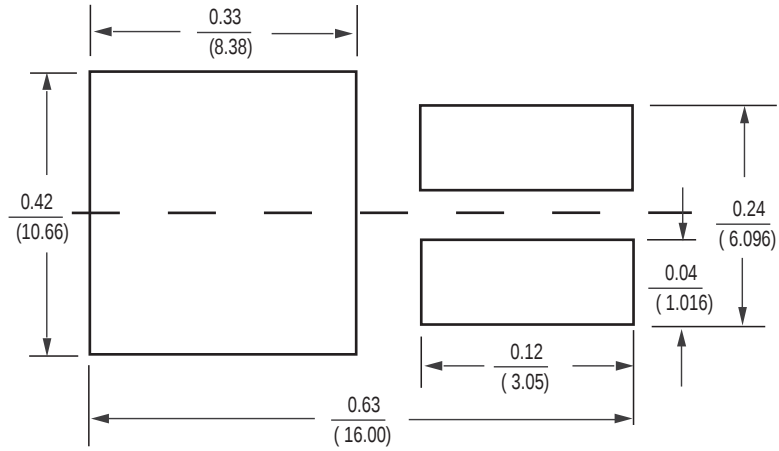


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



Mounting Pad Layout



Dimensions in inches and (millimeters)