

**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**

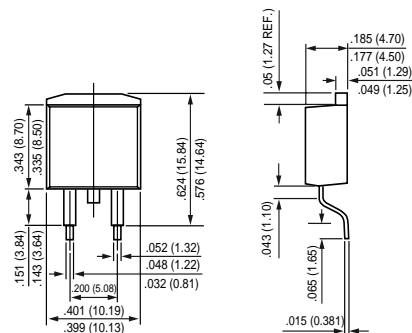
- \* Case: D2PAK molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 2.2 grams

**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  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATINGS	SYMBOL	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	35	40	45	50	60	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	25	28	32	35	42	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	35	40	45	50	60	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>θJC</sub>	2.5							°C/W
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	700					450		pF
Operating Temperature Range	T <sub>J</sub>	-65 to + 125					-65 to + 150		°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 150							°C

**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS		SYMBOL	SR820S	SR830S	SR835S	SR840S	SR845S	SR850S	SR860S	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC		V <sub>F</sub>	.65						.75	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T <sub>C</sub> = 25°C	I <sub>R</sub>	5.0						mAmps	
	@T <sub>C</sub> = 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 )

