

SRS820 THRU SRS860

SCHOTTKY BARRIER RECTIFIER



REVERSE VOLTAGE: 20 to 60 VOLTS
FORWARD CURRENT: 8.0 AMPERE

FEATURES

- For surface mounted application
- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- High capability
- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

Case: Molded plastic, D²PAK

Epoxy: UL 94V-O rate flame retardant

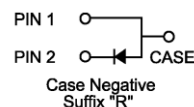
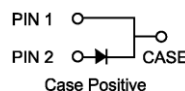
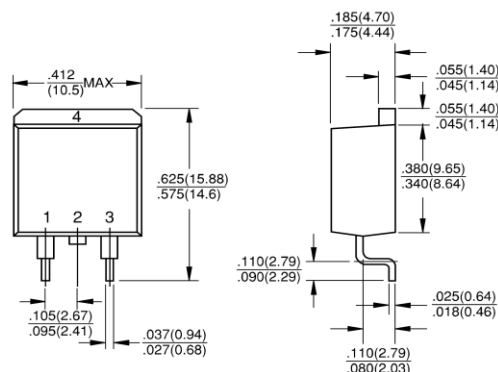
Terminals: Leads solderable per MIL-STD-202
method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.06ounce, 1.70gram

D²PAK



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	SRS820	SRS830	SRS840	SRS850	SRS860	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current See Fig. 1	I _(AV)	8.0					Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150					Amp
Maximum Forward Voltage at 8.0A DC and 25	V _F	0.55			0.70		Volts
Maximum Reverse Current at T _C =25 at Rated DC Blocking Voltage T _C =125	I _R	0.5 50					mAmp
Typical Junction Capacitance (Note 1)	C _J	700			460		pF
Typical Thermal Resistance (Note 2)	R _{θJC}	3					/W
Operating Temperature Range	T _J	-55 to +125			-55 to +150		
Storage Temperature Range	T _{stg}	-55 to +150					

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Case Per Leg

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

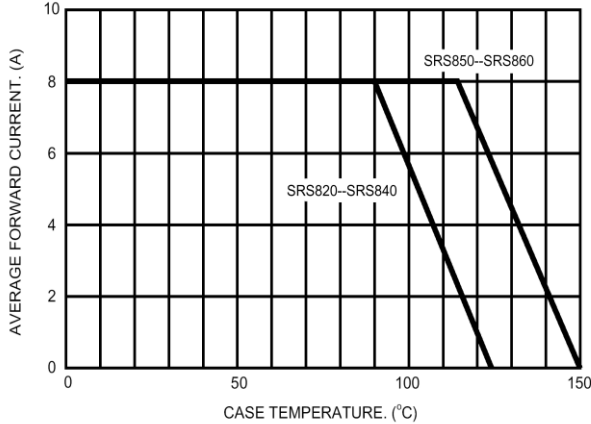


FIG.2- TYPICAL REVERSE CHARACTERISTICS

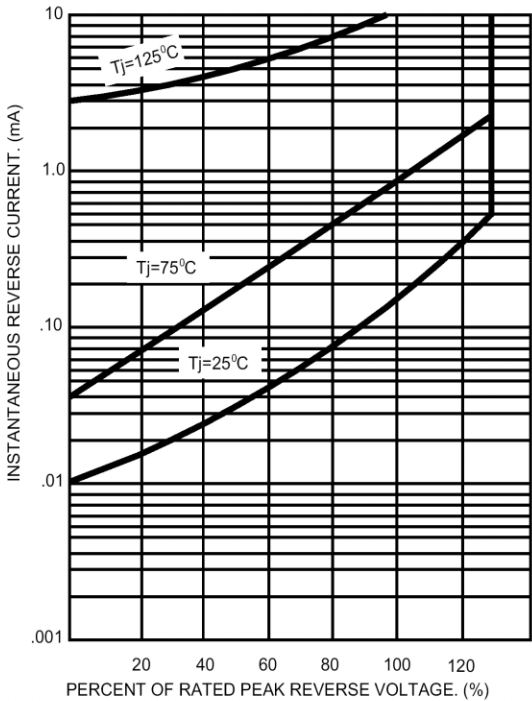


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

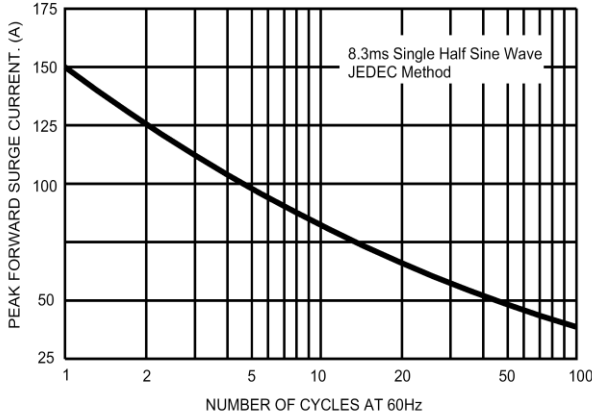


FIG.5- TYPICAL FORWARD CHARACTERISTICS

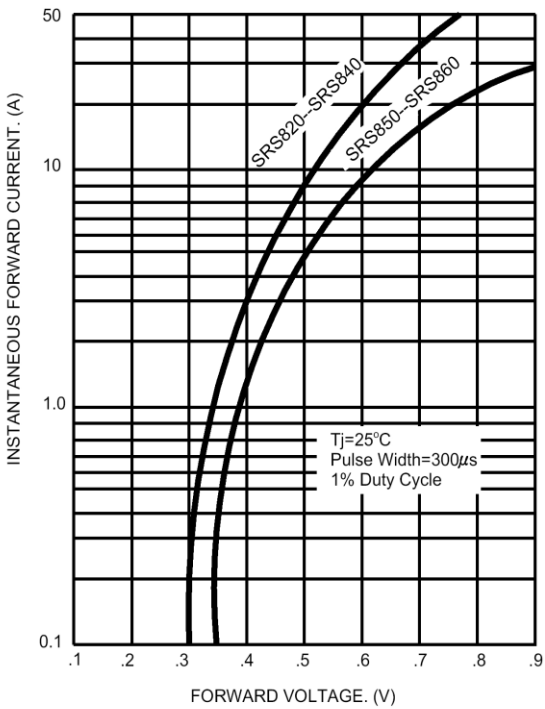


FIG.4- TYPICAL JUNCTION CAPACITANCE

