SR820 THRU SR8200

SCHOTTKY BARRIER RECTIFIER

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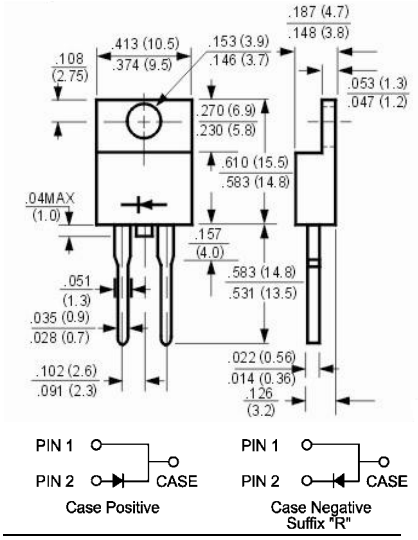
HORNBY ELECTRONIC

REVERSE VOLTAGE: **20 to 200 VOLTS**
FORWARD CURRENT: **8.0 AMPERE**

FEATURES

· Plastic package has UL flammability classification 94V-0
· 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 whelling,and polarity protection applications

TO-220A



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, TO-220A
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
Polarity: As marked
Mounting position: Any
Weight: 0.08ounce, 2.24gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*SR820*	*SR830*	*SR840*	*SR850*	*SR860*	*SR880*	*SR8100*	*SR8150*	*SR8200*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	**Volts**
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	**Volts**
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	**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			0.7		0.85		0.95		**Volts**
Maximum Reverse Current at T_C=25℃	I_R	1.0									**mAmp**
at Rated DC Blocking Voltage T_C=125℃		50			25						
Typical Junction Capacitance (Note 1)	C_J	700			460						**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.5									**℃/W**
Operating Temperature Range	T_J	-55 to +125			-55 to +150						**℃**
Storage Temperature Range	Tstg	-55 to +150									**℃**

NOTES:

1- Measured at 1 MH_Z 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

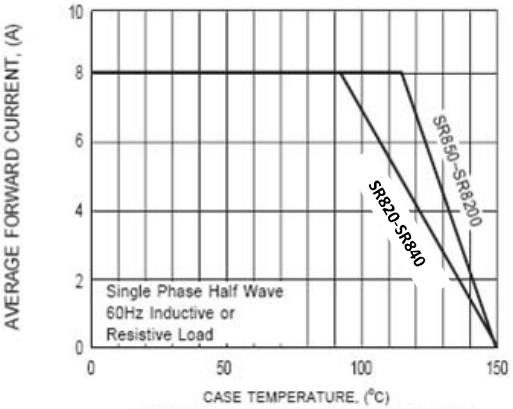

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

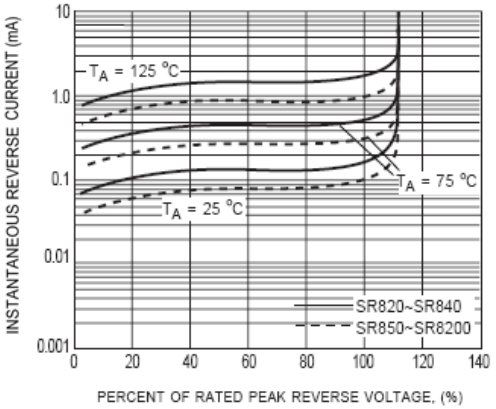

FIG.2 TYPICAL REVERSE CHARACTERISTICS

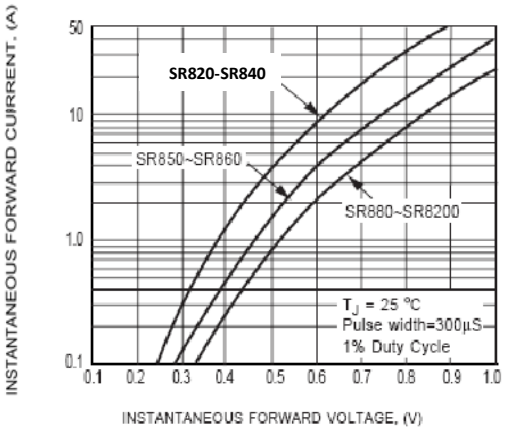

FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

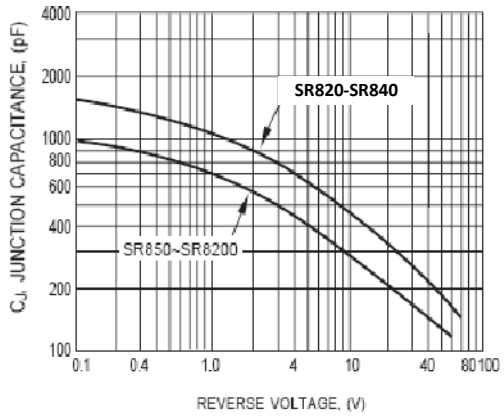

FIG.4 TYPICAL JUNCTION CAPACITANCE

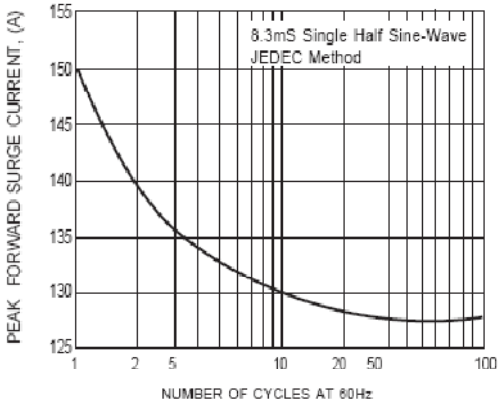

FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT