

SD820 THRU SD8100

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER
VOLTAGE RANGE - 20 to 100 Volts **CURRENT - 8.0 Amperes**

FEATURES

- * Metal to silicon rectifier majority carrier conduction
- * Low power loss, High efficiency
- * High current capability
- * Low forward voltage drop

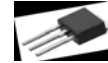
- * For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

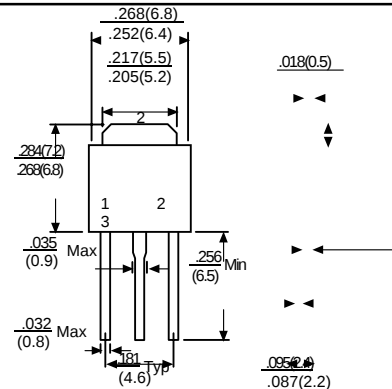
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 0.4 grams Approx.

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%.



TO-251



no suffix	"Y" suffixed	"C" suffixed
3	2	1
2	1	2
1	3	3

Dimensions in inches and (millimeters)

		SYMBOL	SD820	SD830	SD840	SD850	SD860	SD880	SD8100	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at $T_C=75^{\circ}C$		I_O	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 4.0A DC for "C suffixed", and at 8.0A DC for "Y suffixed" & "no suffix"		V_F	0.65			0.75		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^{\circ}C$	I_R	2.0							mAmps
	@ $T_A = 100^{\circ}C$		50							
Typical Thermal Resistance (Note1)		$R_{\theta JA}$	80							$^{\circ}C/W$
Typical Junction Capacitance (Note 2)		C_J	700							pF
Storage Operating Temperature Range		T_J, T_{STG}	-55 to + 125							$^{\circ}C$

Note : 1. Mounted on PC Board with 14mm²(0.013mm thick) copper pad areas.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SD820 THRU SD8100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

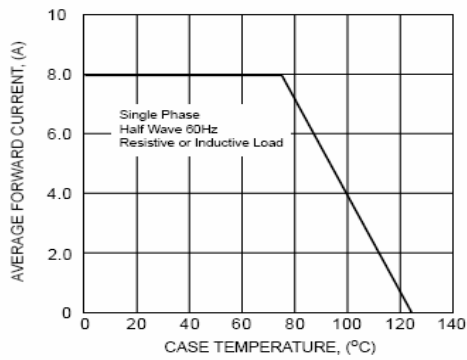


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

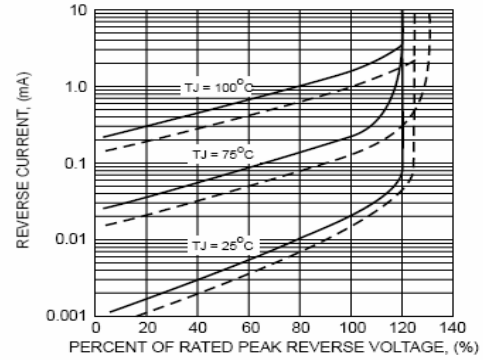


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

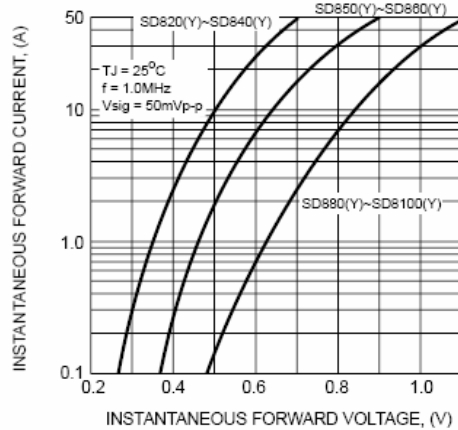


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

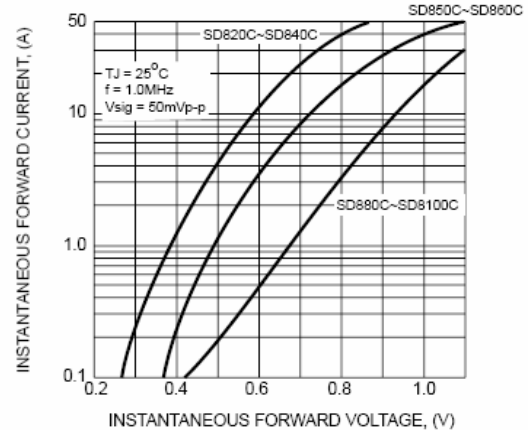


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

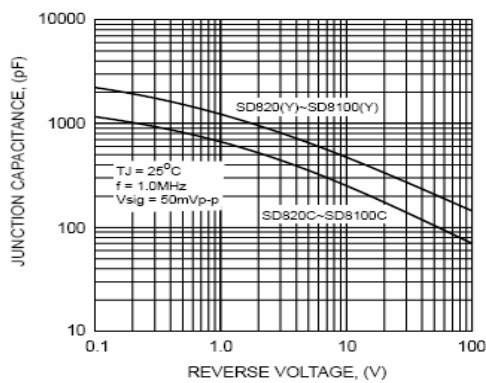


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

