

SD820 THRU SD8100

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

FEATURES

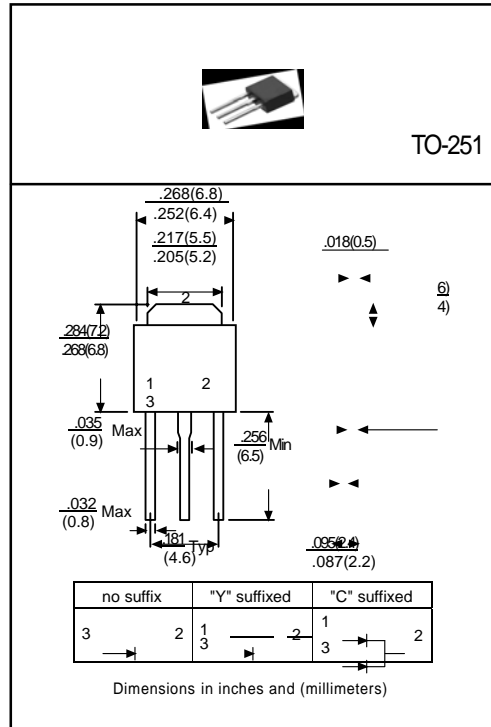
- * Metal to silicon rectifier majority carrier conduction
 - * Low power loss, High efficiency
 - * High current capability
 - * Low forward voltage drop
- * For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

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%.



	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 $T_C=75^\circ\text{C}$	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	I_R	2.0							mAmps
Rated DC Blocking Voltage		50							
Typical Thermal Resistance (Note1)	$R_{\theta JA}$	80							$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_J	700							pF
Storage Operating Temperature Range	T_J, T_{STG}	-55 to + 125							$^\circ\text{C}$

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

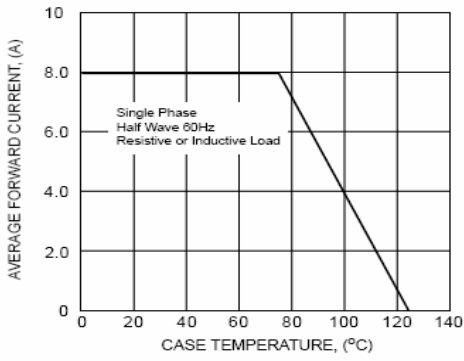


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

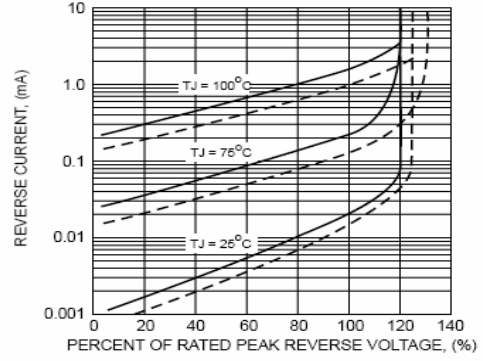


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

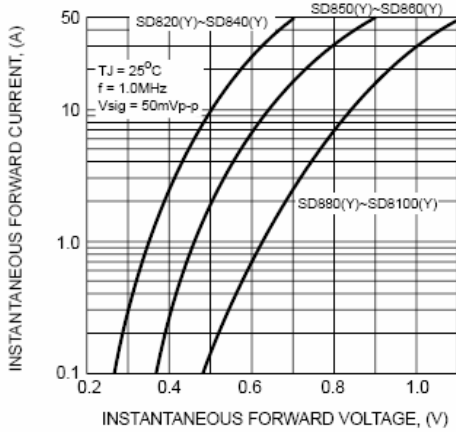


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

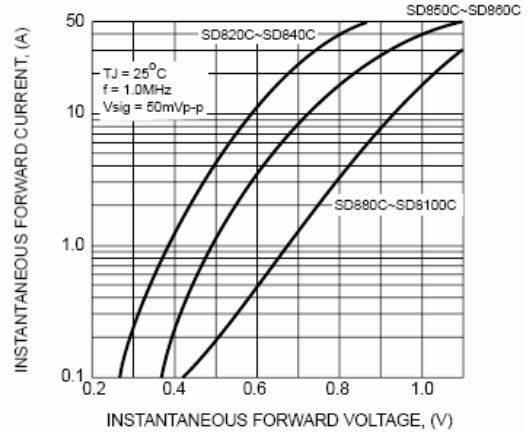


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

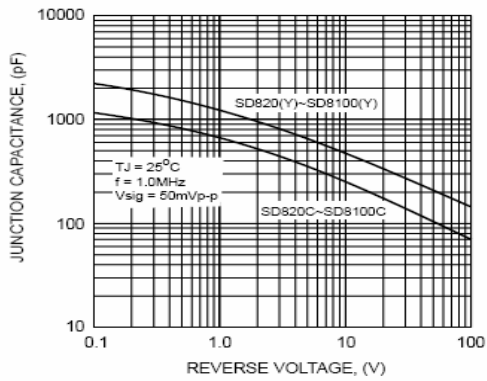


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

