



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**SD820S
THRU
SD8100S**

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

MECHANICAL DATA

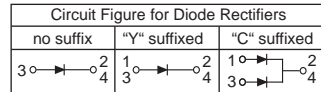
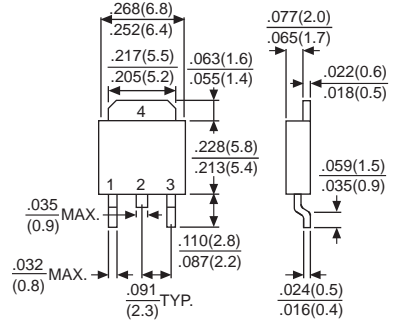
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 0.4 grams Approx.

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-252(DPAK)



Dimensions in inches and (millimeters)

	SYMBOL	SD820S	SD830S	SD840S	SD850S	SD860S	SD880S	SD8100S	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 _{bc}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at T _C =75°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	I _R	@ T _A = 25°C	2.0						mAmps
		@ T _A = 100°C	50						
Typical Thermal Resistance (Note1)	R _{θJA}	80						°C/W	
Typical Junction Capacitance (Note 2)	C _J	700						pF	
Storage Operating Temperature Range	T _J , T _{STG}	-55 to + 125						°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 (SD820S THRU SD8100S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

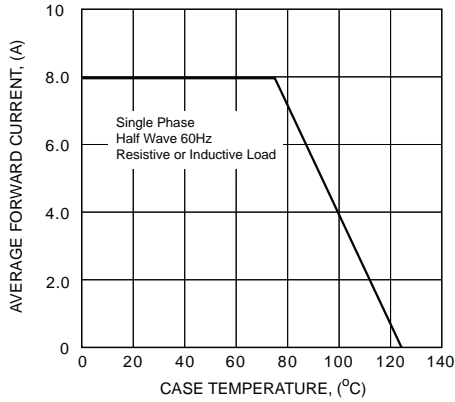


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

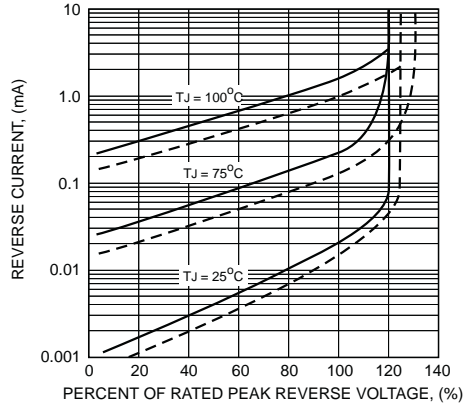


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

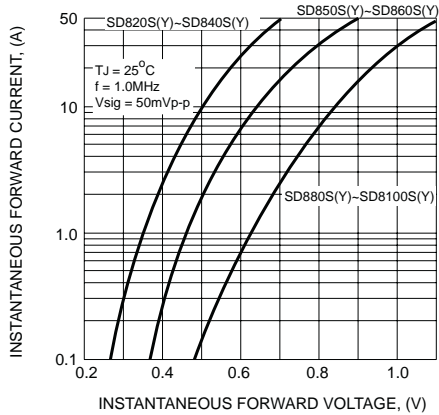


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

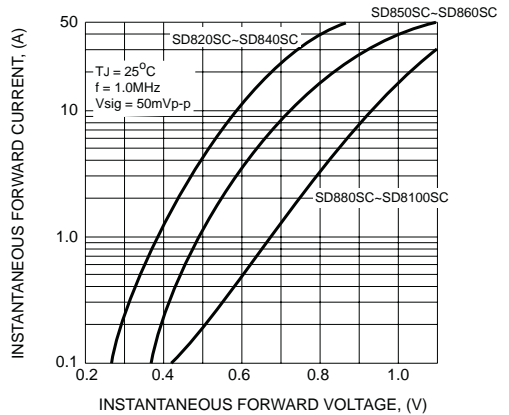


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

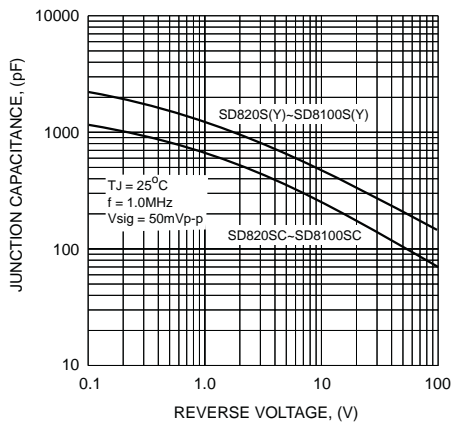
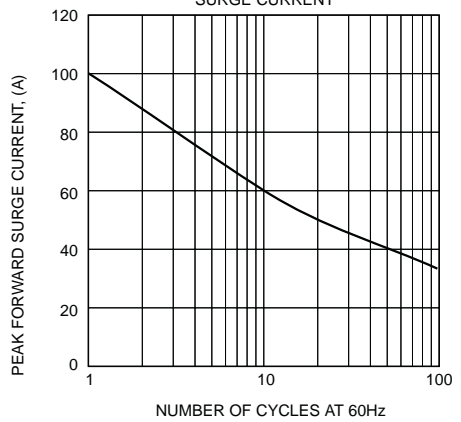


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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