



# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

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

#### MECHANICAL DATA

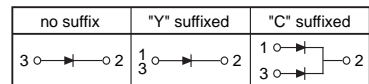
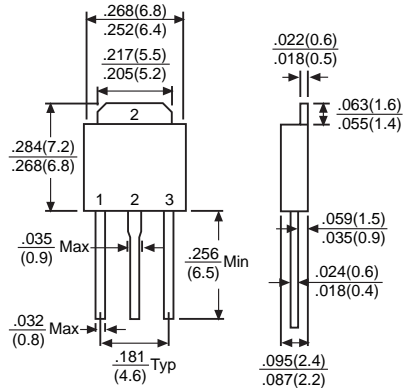
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Mounting position: Any
- \* Weight: 0.4 grams Approx.

#### 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-251



Dimensions in inches and (millimeters)

	SYMBOL	SD820	SD830	SD840	SD850	SD860	SD880	SD8100	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	80	100	Volts	
Maximum RMS Voltage	VRMS	14	21	28	35	42	56	70	Volts	
Maximum DC Blocking Voltage	Vbc	20	30	40	50	60	80	100	Volts	
Maximum Average Forward Rectified Current at TC=75°C	IO	8.0							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100							Amps	
Maximum Instantaneous Forward Voltage at 4.0A DC for "C suffixed", and at 8.0A DC for "Y suffixed" & "no suffix"	VF	0.65			0.75		0.85		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@ TA = 25°C	2.0							mAmps
		@ TA = 100°C	50							
Typical Thermal Resistance (Note1)	R θJA	80							°C/W	
Typical Junction Capacitance (Note 2)	CJ	700							pF	
Storage Operating Temperature Range	TJ, TSTG	-55 to + 125							°C	

Note : 1. Mounted on PC Board with 14mm<sup>2</sup>(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

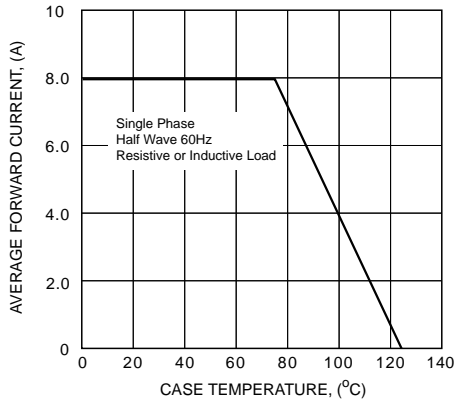


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

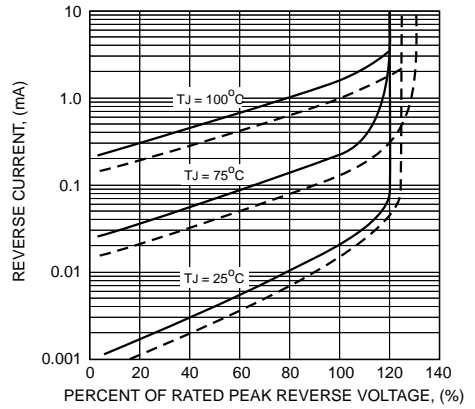


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

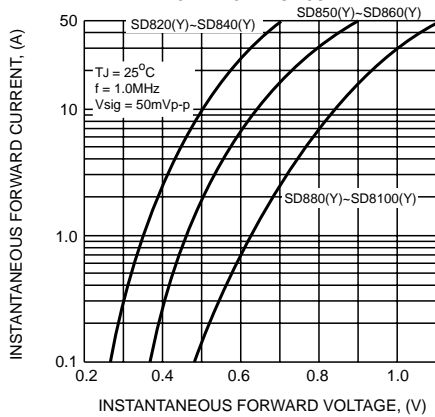


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

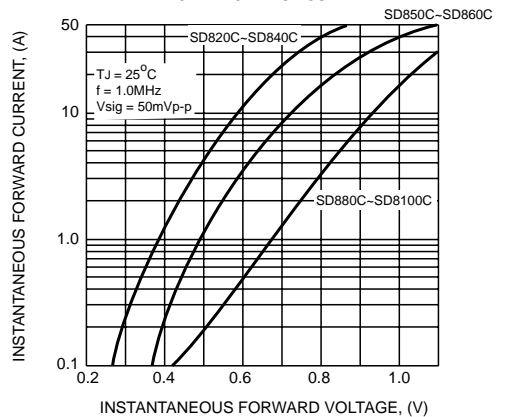


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

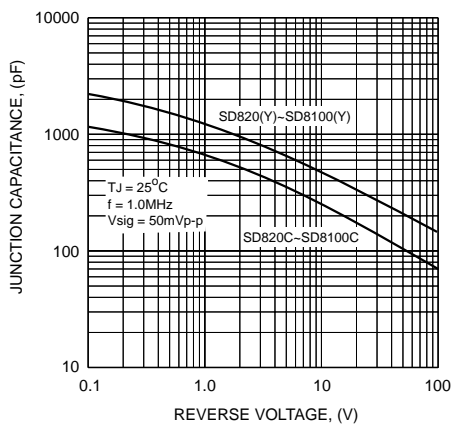


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

