



**DC COMPONENTS CO., LTD.**  
RECTIFIER SPECIALISTS

**SD520  
THRU  
SD5100**

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**  
VOLTAGE RANGE - 20 to 100 Volts      CURRENT - 5.0 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**

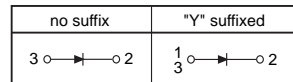
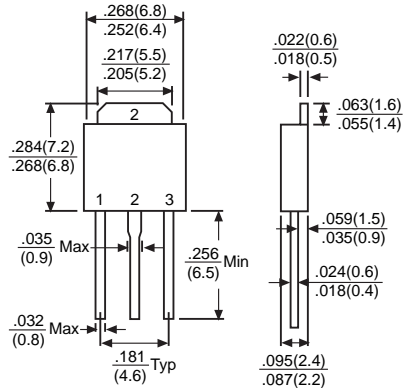
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Mounting position: Any
- \* Weight: 0.4 grams Approx.

**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	SD520	SD530	SD540	SD550	SD560	SD580	SD5100	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	Vdc	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at TC=75°C	IO	5.0							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 5.0A DC	VF	0.55		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)	RθJA	80							°C/W
Typical Junction Capacitance (Note 2)	CJ	550							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 (SD520 THRU SD5100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

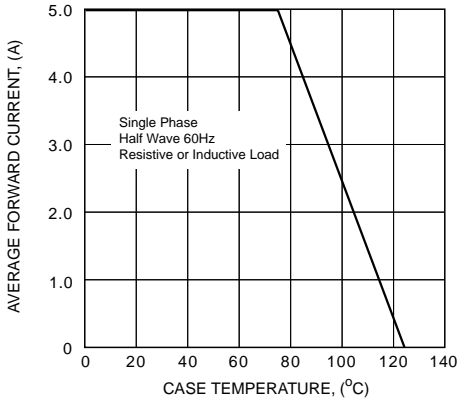


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

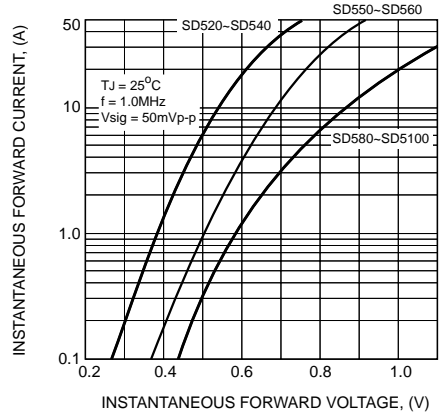


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

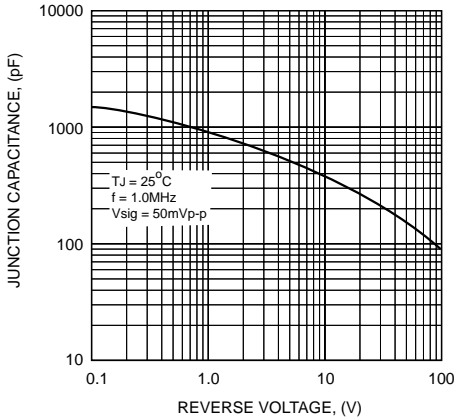


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

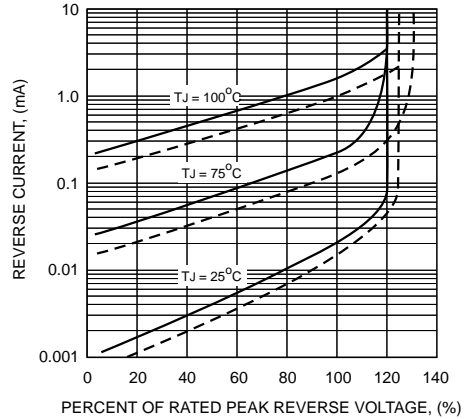


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

