



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

SD1020S  
THRU  
SD10100S

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 20 to 100 Volts**

**CURRENT - 10 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**

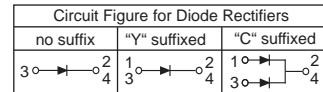
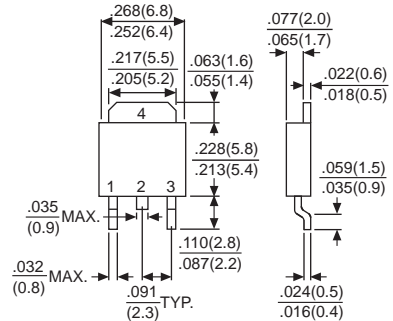
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Mounting position: Any
- \* Weight: 0.4 grams Approx.

**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	SD1020S	SD1030S	SD1040S	SD1050S	SD1060S	SD1080S	SD10100S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =75°C	I <sub>O</sub>	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							Amps
Maximum Instantaneous Forward Voltage at 5.0A	V <sub>F</sub>	0.70		0.80		0.85		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@ T <sub>A</sub> = 25°C	2.0						mAmps
		@ T <sub>A</sub> = 100°C	50		25				
Typical Thermal Resistance (Note1)	R <sub>θJA</sub>	2.5				°C/W			
Storage Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 125							°C

Note : 1. Thermal resistance from junction to case.

# RATING AND CHARACTERISTIC CURVES (SD1020S THRU SD10100S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

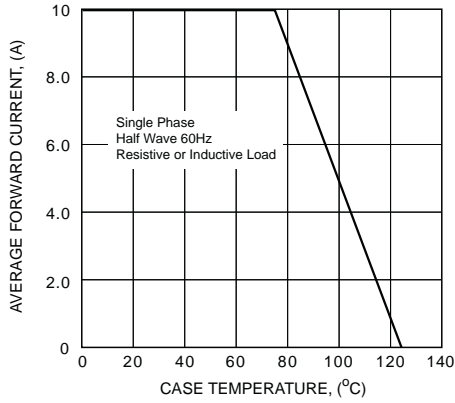


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

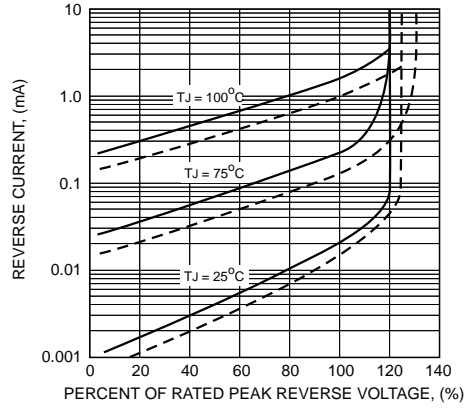


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

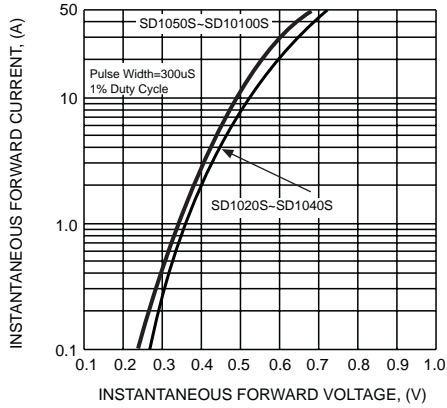


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

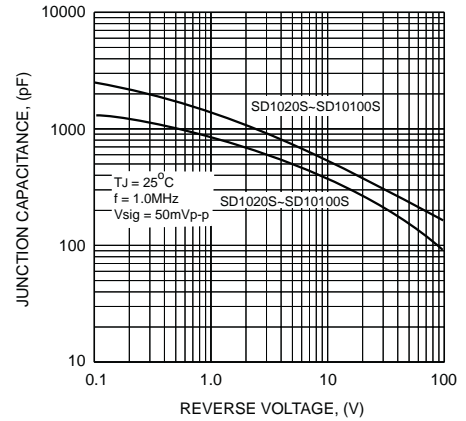
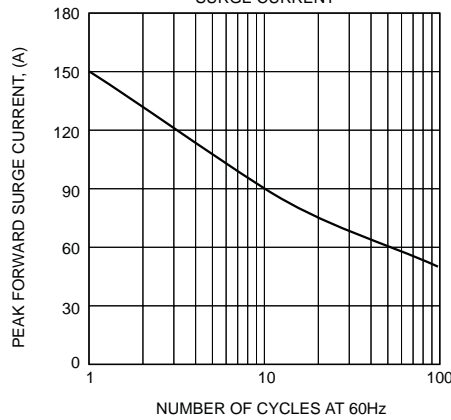


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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