



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SD520S
THRU
SD5200S

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 200 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

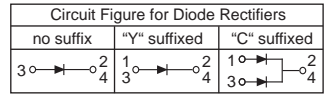
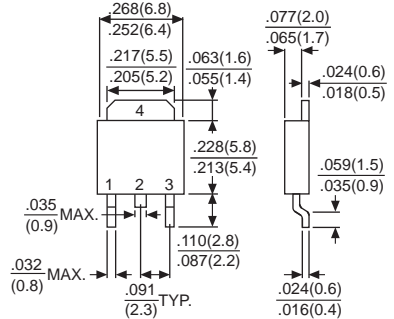
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 0.4 grams Approx.

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-252(DPAK)



Dimensions in inches and (millimeters)

	SYMBOL	SD520S	SD530S	SD540S	SD550S	SD560S	SD580S	SD5100S	SD5150S	SD5200S	UNITS	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at T _C =75°C	I _O						5.0					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 5.0A DC	V _F	0.55			0.75			0.85			Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ 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						550					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 (SD520S THRU SD5100S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

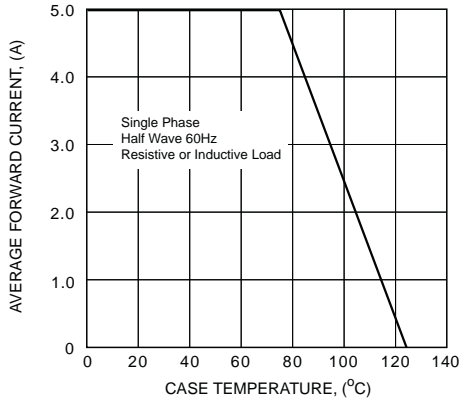


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

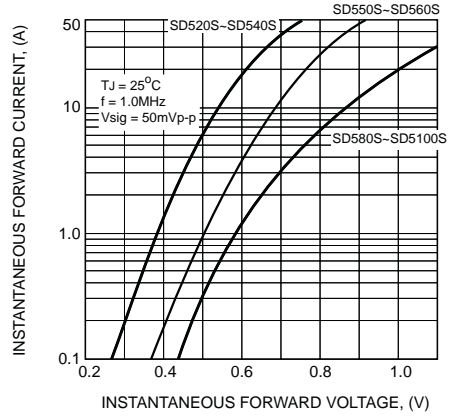


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

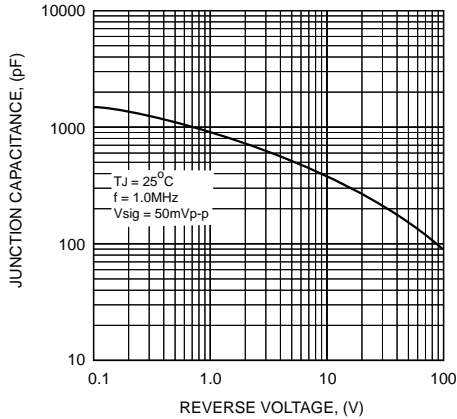


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

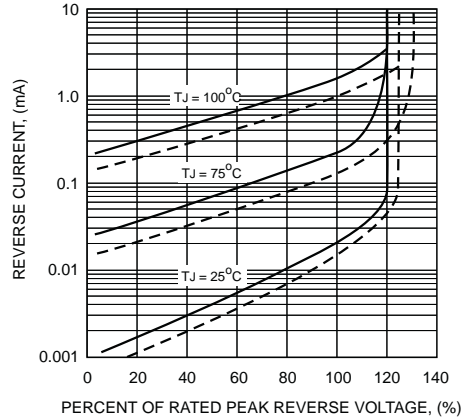
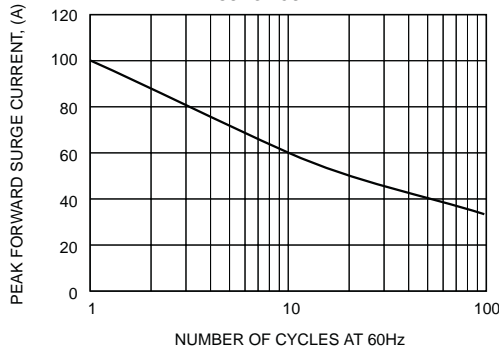


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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