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

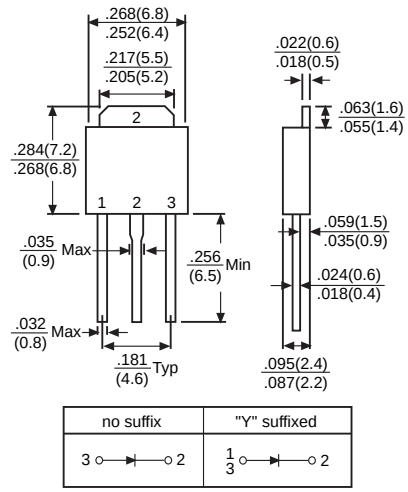
* Metal to silicon rectifier majority carrier conduction
* Low power loss, High efficiency
* High current capability
* Low forward voltage drop
* High surge capacity
* For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

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.



TO-251



no suffix	"Y" suffixed
3 o—▶|—o 2	1 / 3 o—▶|—o 2

Dimensions in inches and (millimeters)

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%.

		SYMBOL	SD520	SD530	SD540	SD550	SD560	SD580	SD5100	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_{DC}	20	30	40	50	60	80	100	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	I_R	2.0							mAmps
	@T_A = 100°C		50							
Typical Thermal Resistance (Note1)		$R_{\theta JA}$	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 14mm^2(0.013mm thick) copper pad areas.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Diode, Bridge Rectifiers INDEX ① | Diode, Bridge Rectifiers INDEX ② | Transistors, SCR, IC INDEX ① | Transistors, SCR, IC INDEX ② | EXIT

RATING AND CHARACTERISTIC CURVES (SD520 THRU SD5100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

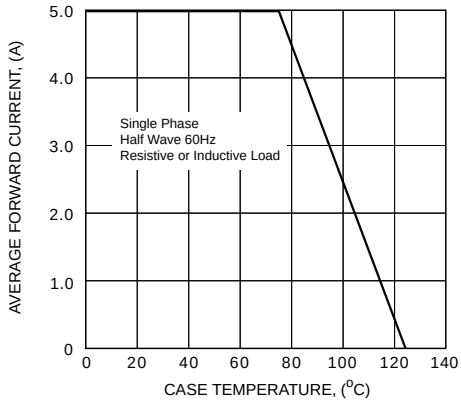


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

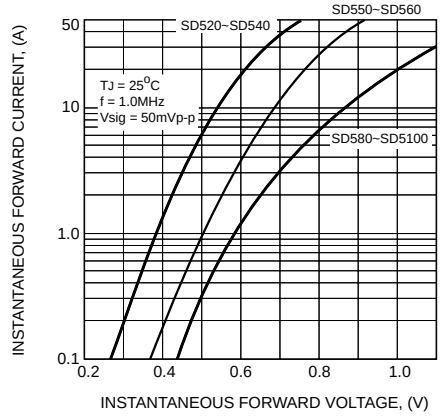


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

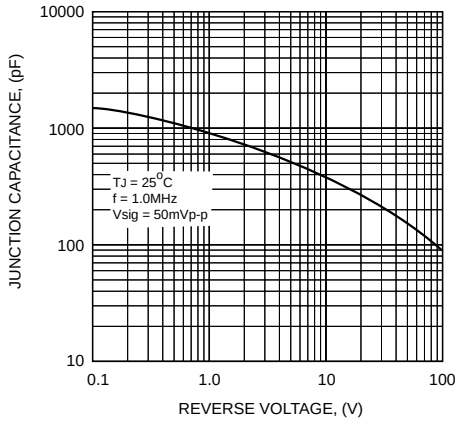


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

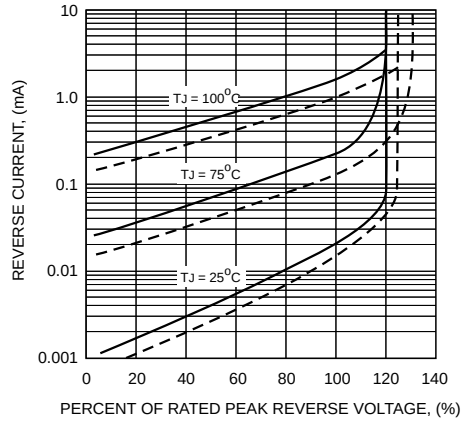


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

