



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SD1020
THRU
SD10100

TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 100 Volts

CURRENT - 10 Amperes

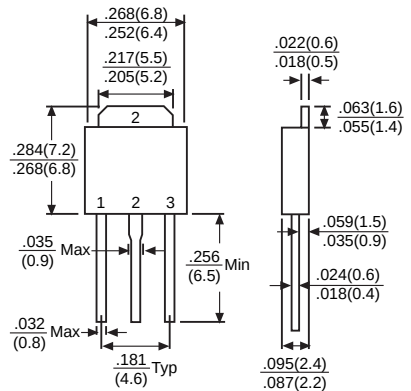
FEATURES

- * 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.

TO-251



no suffix	"Y" suffixed	"C" suffixed
3 o — 2	1/3 o — 2	1 o — 2 3 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	SD1020	SD1030	SD1040	SD1050	SD1060	SD1080	SD10100	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	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	150							Amps
Maximum Instantaneous Forward Voltage at 5.0A DC for "C suffixed", and at 10A DC for "Y suffixed" & "no suffix"		VF	0.65			0.75		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C	IR	2.0						mAmps	
	@ TA = 100°C		50							
Typical Thermal Resistance (Note1)		RθJA	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 14mm²(0.013mm thick) copper pad areas.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SD1020 THRU SD10100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

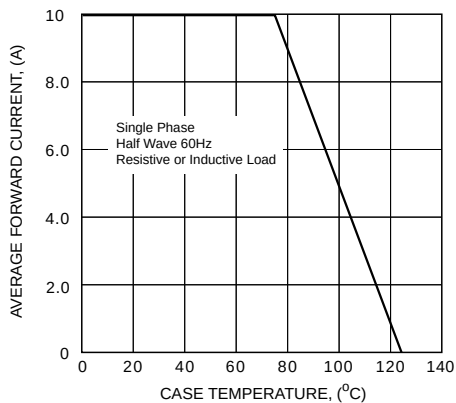


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

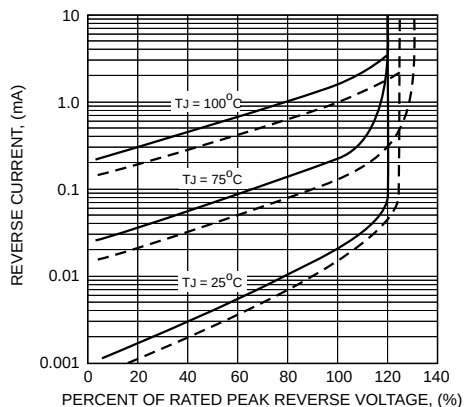


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

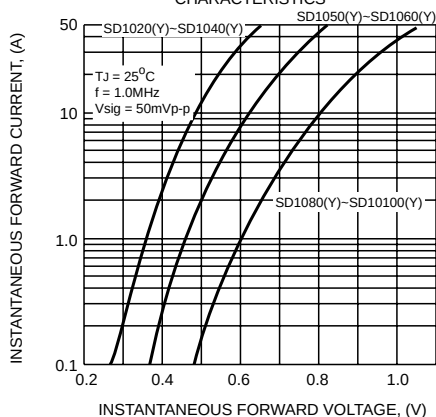


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

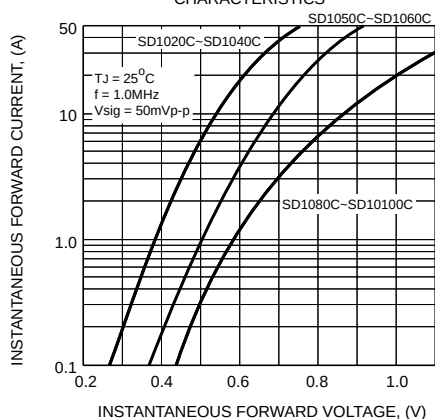


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

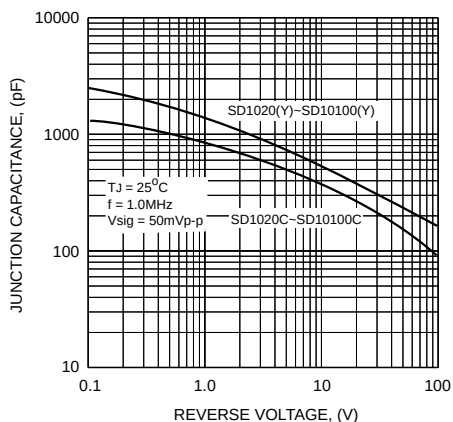
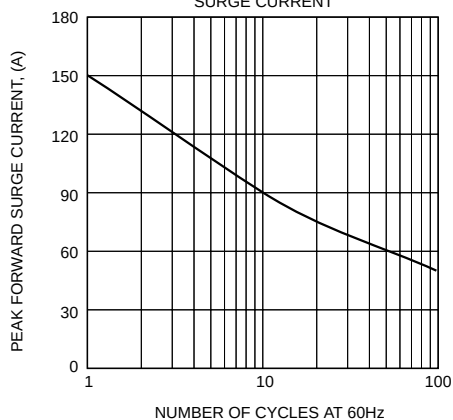


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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