



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

SD1020S
THRU
SD10100S

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER DIODE
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

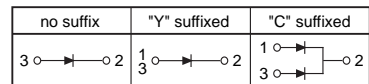
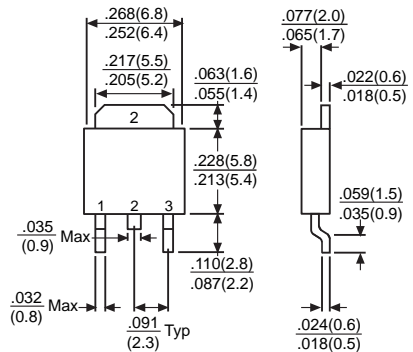
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 0.4 grams Approx.

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	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	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	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 (SD1020S THRU SD10100S)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

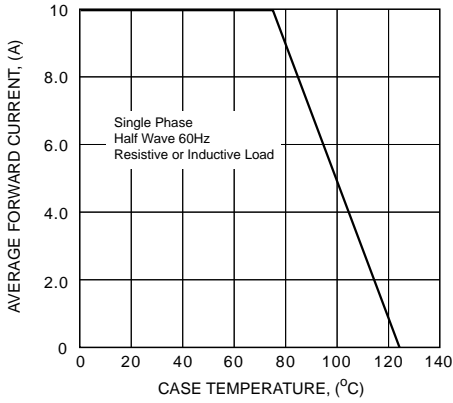


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

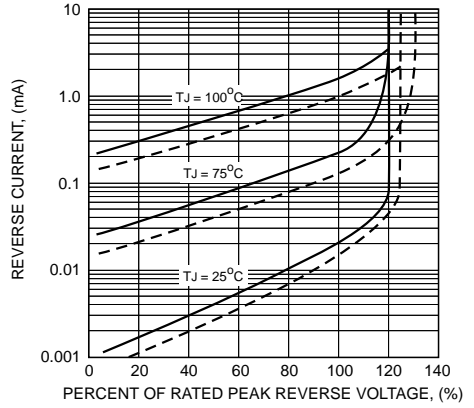


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

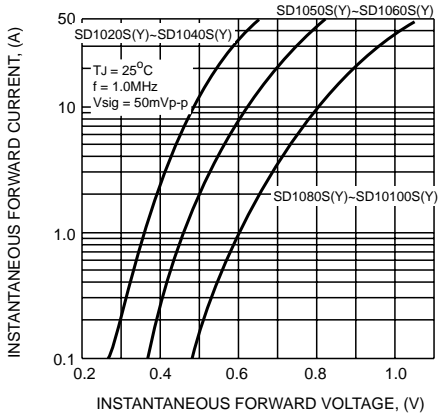


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

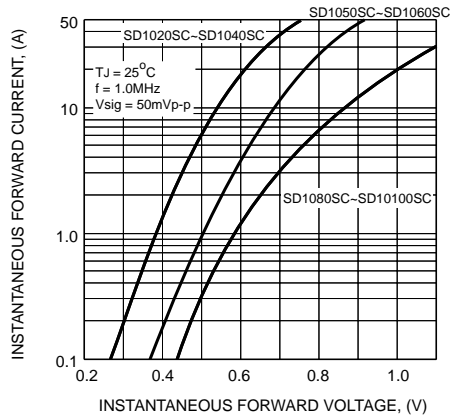


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

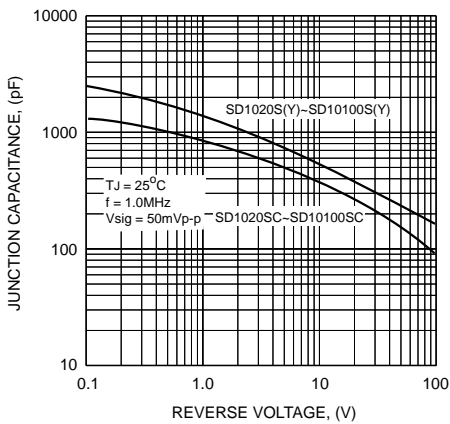


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

