



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

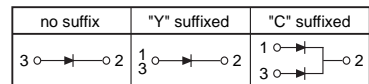
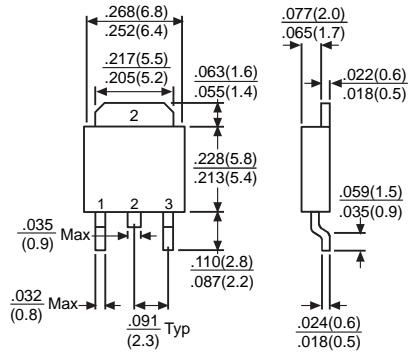
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting position: Any
- * Weight: 0.4 grams Approx.

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	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 TA=100°C	I _O	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150							Amps
Maximum Instantaneous Forward Voltage at 5.0A	V _F	0.70			0.80		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@ TA = 25°C	2.0						mAmps
		@ TA = 100°C	50			25			
Typical Thermal Resistance (Note1)	R _{θJA}	2.5				°C/W			
Storage Operating Temperature Range	T _J , T _{STG}	-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

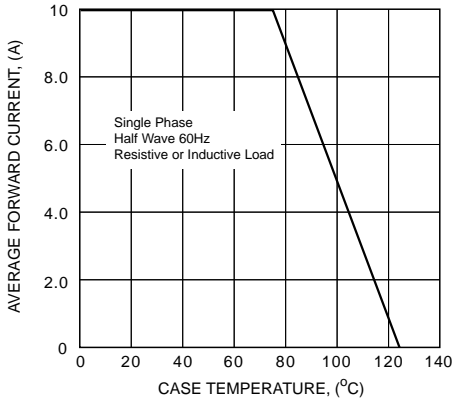


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

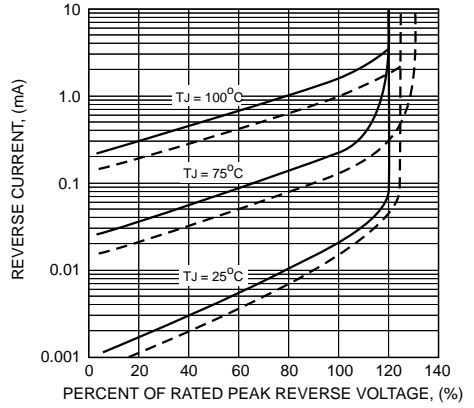


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

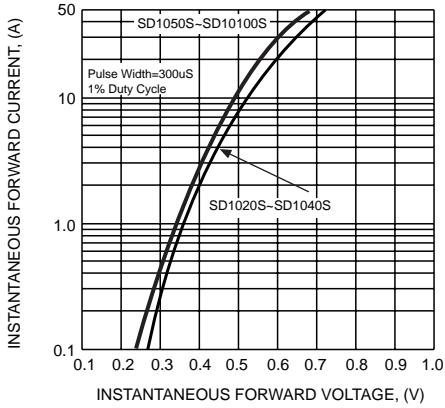


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

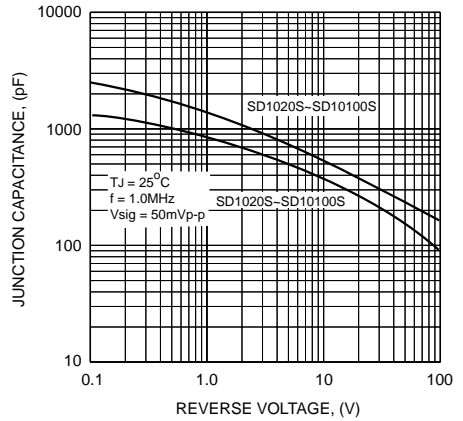


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

