

RECTIFIER SPECIALISTS

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 60 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

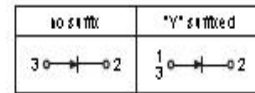
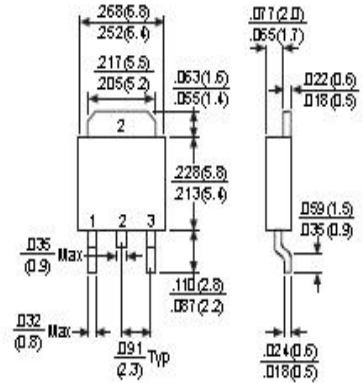
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz , 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	SD5100S	SD5100S	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	VRRS	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	I _o	5.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100							Amps
Maximum instantaneous Forward Voltage at 2.0A DC	VF	0.55			0.75		0.85		
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA =25°C	2.0							mAmps
	@TA =100°C	50							
Typical Thermal Resistance (Note1)	RθJA	80							°C/w
Typical Junction Capacitance (Note2)	CJ	550							pF
Storage and Operating Temperature Range	TJ ,TS TG	-50to+125							°C

NOTE: 1. Mounted on PC Board with 14mm² (0.013mm thick)copper pad areas.2. Measured at 1 MHz applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

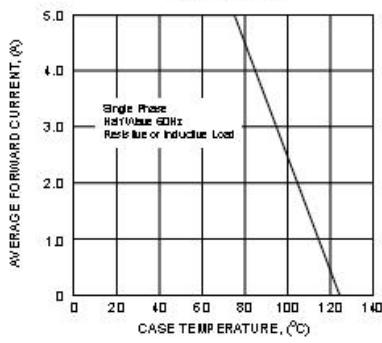


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

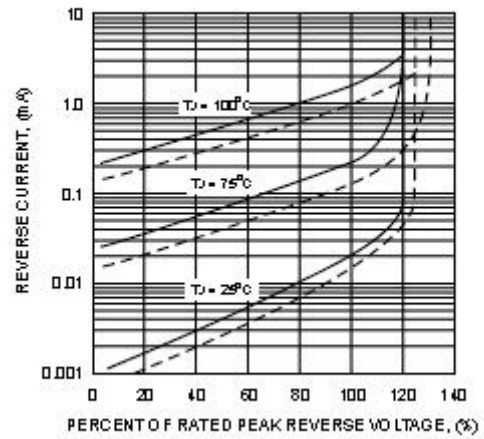


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

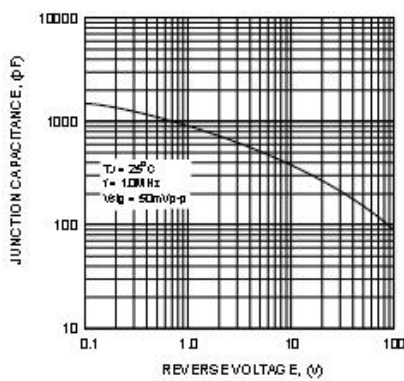


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

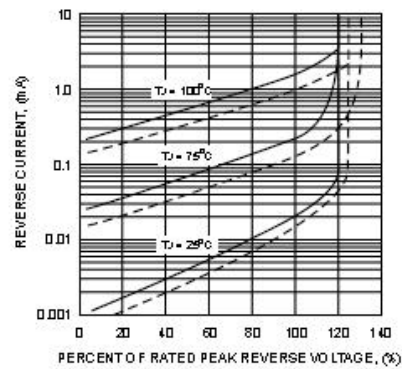


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

