SB520 THRU SB5100

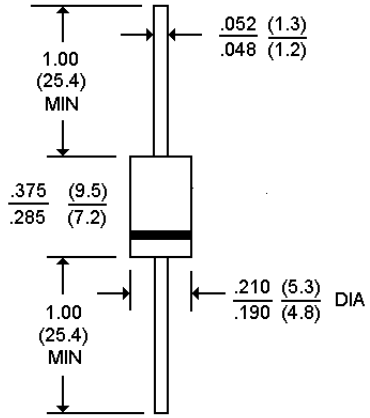
HIGH CURRENT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE - 20 to 100 Volts CURRENT - 5.0 Amperes

FEATURES

- Low cost
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing
- Metal to silicon rectifier, Majority carrier conduction
- Low power loss, high efficiency
- High current capability, Low V_F
- High surge capacity
- Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250 ¢J/10 seconds/.375”(9.5mm) lead lengths at 5 lbs., (2.3kg) tension

DO-201AD



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-201AD
Terminals: Axial leads, solderable per MIL-STD-202, Method 208
Polarity: Color band denotes cathode
Mounting Position: Any
Weight: 0.04 ounce, 1.12 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.
Resistive or inductive load.
For capacitive load, derate current by 20%.

	SB520	SB530	SB540	SB550	SB560	SB580	SB5100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	80	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current, .375”(9.5mm) Lead Length(Fig. 1)	5.0							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 5.0A	0.55			0.70		0.85		V
Maximum DC Reverse Current T_A=25 ¢J Reverse Voltage T_A=100 ¢J	0.5 50.0							mA
Typical Thermal Resistance (Note 1) R £KJL	15			10				¢J/W
Typical Junction capacitance (Note 2)	500			380				pF
Operating and Storage Temperature Range T_J,T_{STG}	-50 TO +125							¢J

NOTES:

1. Thermal Resistance Junction to Lead Vertical PC Board Mounting .375(9.5mm) Lead Lengths
2. Measured at 1 MHz and applied reverse voltage of 4.0 Volts

RATING AND CHARACTERISTIC CURVES

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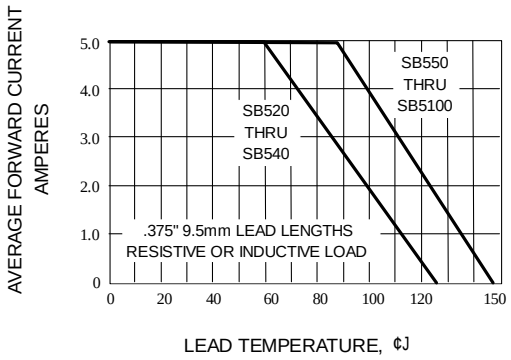

Fig. 1-FORWARD CURRENT DERATING CURVE

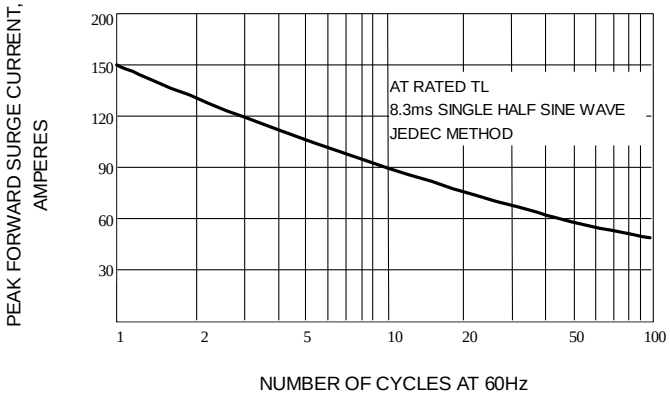

Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

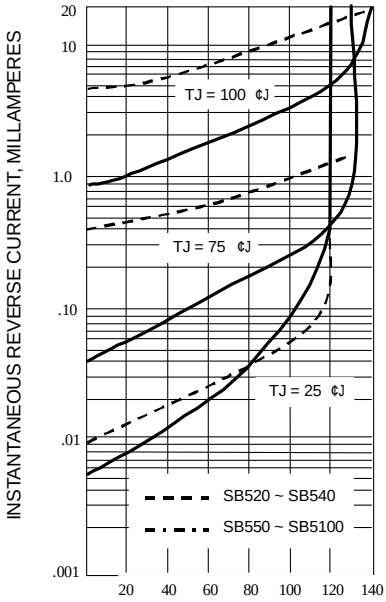

Fig. 3-TYPICAL REVERSE CHARACTERISTICS

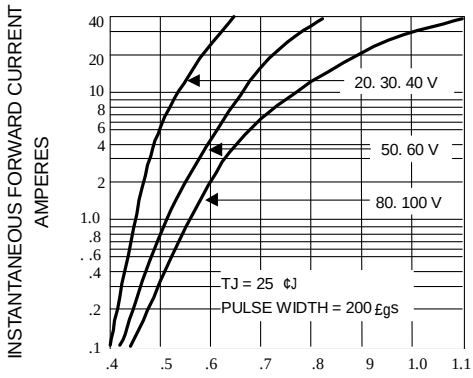

Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

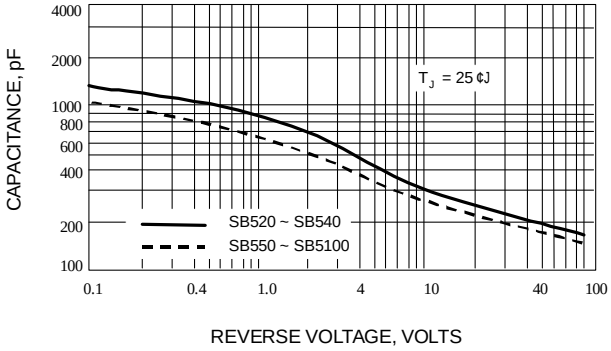

Fig. 5-TYPICAL JUNCTION CAPACITANCE