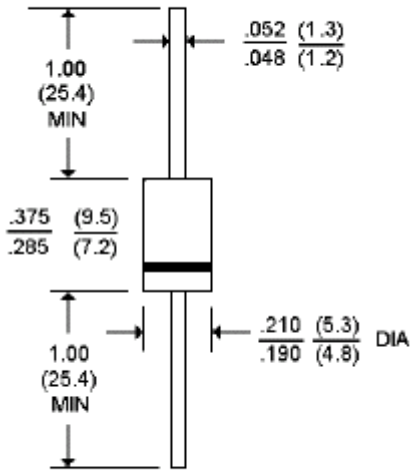
SB530/540/560

5A Power Diodes

DO-201AD



Dimensions in inches and (millimeters)

Features:

- Low cost.
- 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°C/10 seconds/0.375” (9.5mm) lead lengths at 5lbs., (2.3kg) tension.

Mechanical Data:

Case	: Moulded plastic, DO-201AD.
Terminals	: Axial leads, solderable per MIL-STD-202, Method 208.
Polarity	: Colour band denotes cathode.
Mounting position	: Any.
Weight	: 1.12 grams.

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

For capacitive load, derate current by 20%.

	SB530	SB540	SB560	Units
Maximum recurrent peak reverse voltage	30	40	60	V
Maximum RMS voltage	21	28	42	
Maximum DC blocking voltage	30	40	60	
Maximum average forward rectified current, 0.375" (9.5mm) lead length (Figure 1)	5.0			A
Peak forward surge current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	150			
Maximum Instantaneous forward voltage at 5.0A	0.55		0.70	V
Maximum DC reverse current T_A = 25°C Reverse voltage T_A = 100°C	0.5 50.0			mA
Typical Thermal Resistance (Note 1) RθJL	15		10	°C/W
Typical junction capacitance (Note 2)	500		380	pF
Operating and Storage temperature range T_J, T_{STG}	-50 to +125			°C

Notes:

1. Thermal resistance junction to lead vertical PC Board mounting 0.375" (9.5mm) lead lengths.
2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATING AND CHARACTERISTIC CURVES

Figure 1 - FORWARD CURRENT DERATING CURVE

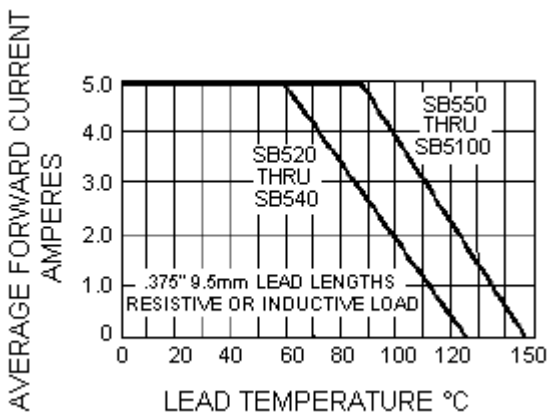


Figure 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

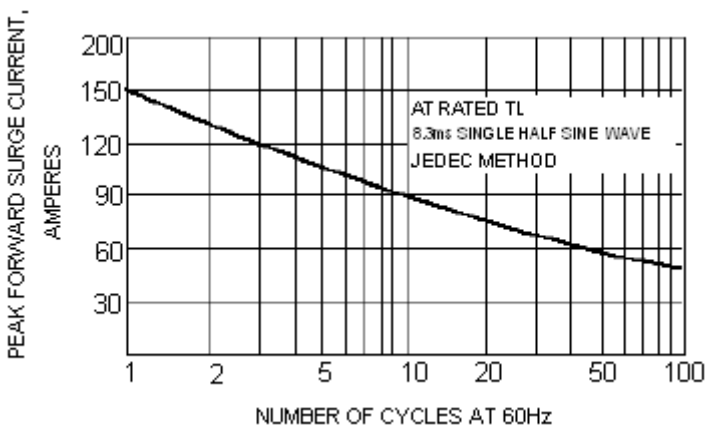


Figure 3 - TYPICAL REVERSE CHARACTERISTICS

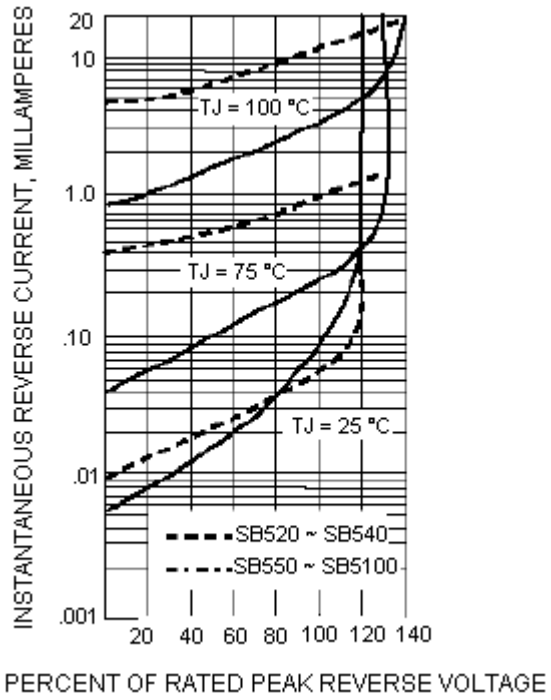


Figure 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

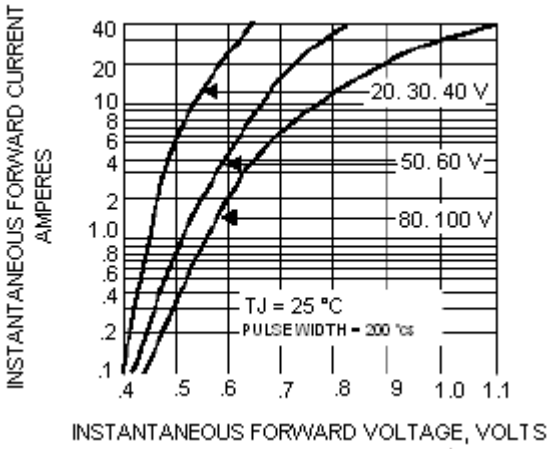
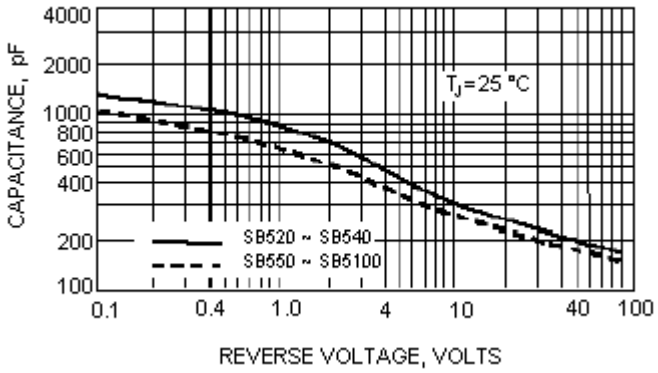


Figure 5 - TYPICAL JUNCTION CAPACITANCE



Specifications

I_F Average maximum (A)	V_{RRM} maximum (V)	V_F (V)	I_F (A)	I_{FSM} (A)	Package	Length	Diameter	Part Number
-	30	-	-	150	DO-201 AD	9.5	5.6	SB530
5	40	0.55	5					SB540
	60	0.7						SB560

Order Multiple = 1

Dimensions : Millimetres

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