

Schottky Diode



RoHS
Compliant



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

Specifications:

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	: 1.12g

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%.

Parameters	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			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	150			

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Parameters	SB530	SB540	SB560	Units
Maximum Instantaneous Forward Voltage at 5A	0.55		0.7	V
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ Reverse Voltage $T_A = 100^\circ\text{C}$	0.5 50			mA
Typical Thermal Resistance (Note 1) $R_{\theta JA}$	15		10	$^\circ\text{C/W}$
Typical Junction Capacitance (Note 2)	500		380	pF
Operating and Storage Temperature Range T_J, T_{STG}	-50 to +125			$^\circ\text{C}$

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 4V.

Ratings and Characteristic Curves

Figure 1 - Forward Current Derating Curve

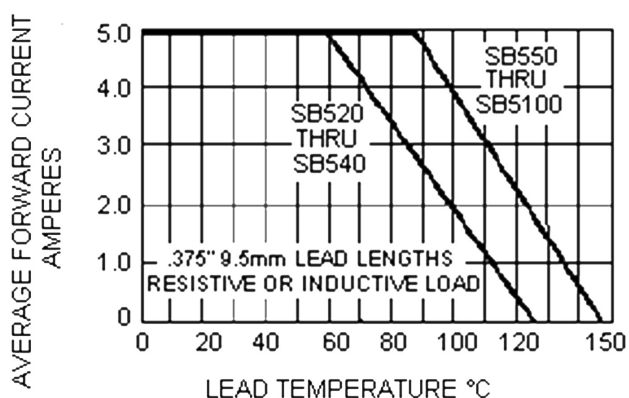


Figure 2 - Maximum Non-Repetitive Peak Forward Surge Current

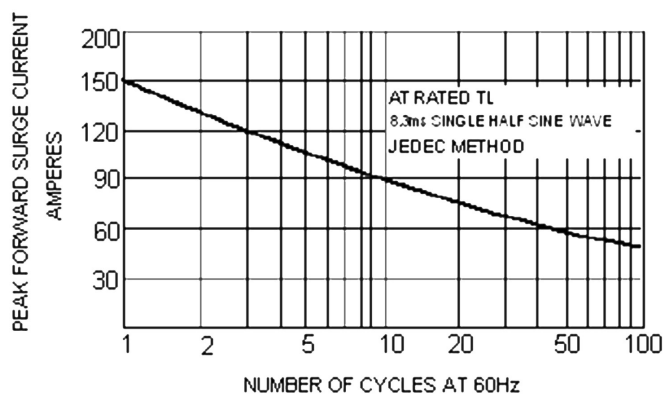


Figure 3 - Typical Reverse Characteristics

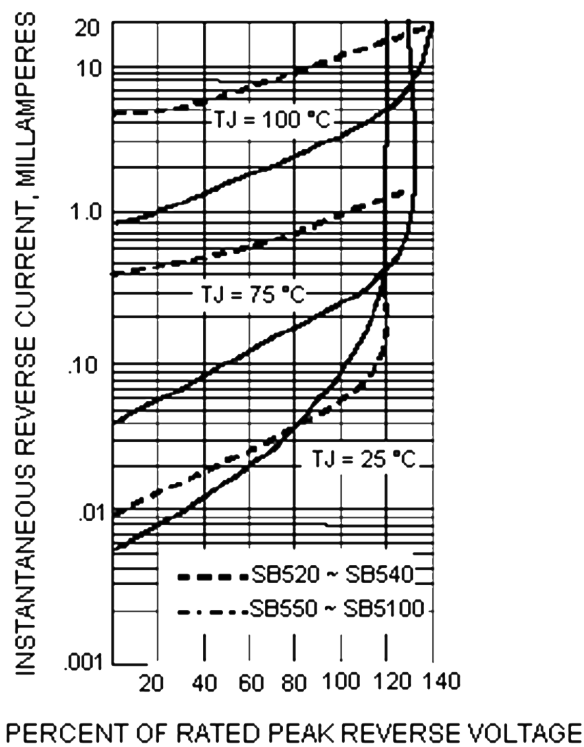


Figure 4 - Typical Instantaneous Forward Characteristics

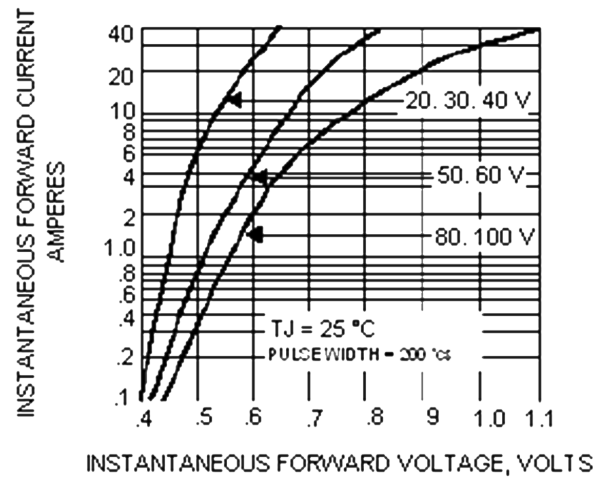
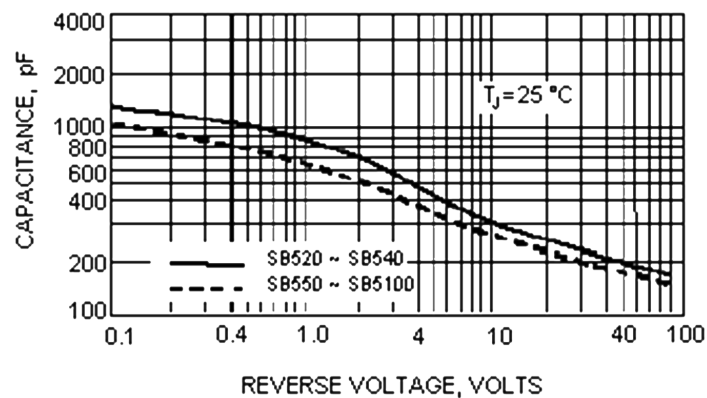


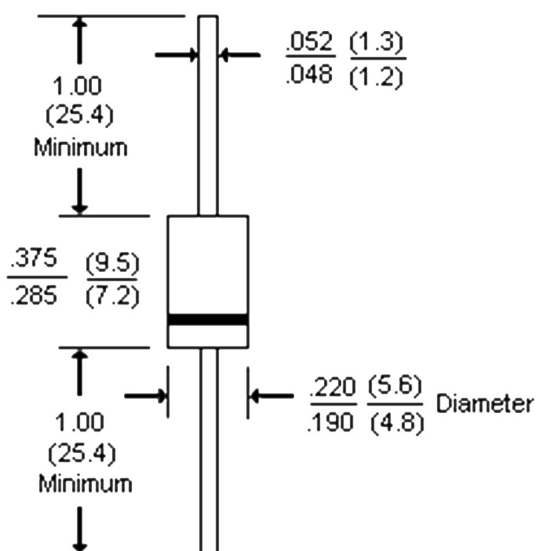
Figure 5 - Typical Junction Capacitance



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DO-201AD



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Schottky, Reel 1250	SB530
Diode, Schottky, 5A, 30V	SB530
Diode, Schottky, 5A, 40V	SB540
Diode, Schottky, 5A, 60V	SB560

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