



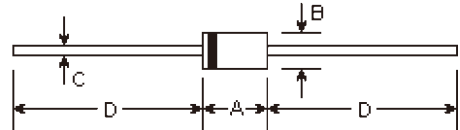
**MEDIUM CURRENT SCHOTTKY BARRIER RECTIFIER**

**Reverse Voltage 20 to 100 Volts, Forward Current 5.0 Ampere**

**Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- 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 length, 5 lbs. (2.3Kg) tension

**DO-201AD**



**Mechanical Data**

- **Case:** DO-201AD molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.041 ounce, 1.15 grams

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.283	0.374	7.20	9.50	
B	0.189	0.208	4.80	5.30	ϕ
C	0.048	0.051	1.20	1.30	ϕ
D	1.000	-	25.40	-	

**Maximum Ratings and Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	SB520	SB530	SB540	SB550	SB560	SB580	SB5100	SB5150	SB5200	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current @T <sub>L</sub> = 95°C (Note 1)	I <sub>O</sub>	5.0									A
Non-Repetitive Peak Forward Surge Current 8 3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150									A
Forward Voltage @I <sub>F</sub> = 5.0A	V <sub>FM</sub>	0.55		0.7		0.85		0.92			V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.5 50		0.5 25		0.02 10					mA
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	250									pF
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	25									°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150									°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



# SB520 ~ SB5200

## RATINGS AND CHARACTERISTIC CURVES

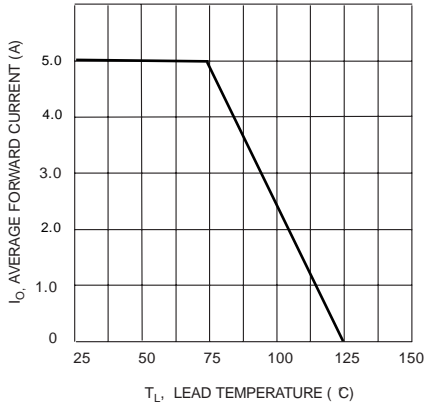


Fig. 1 Forward Current Derating Curve

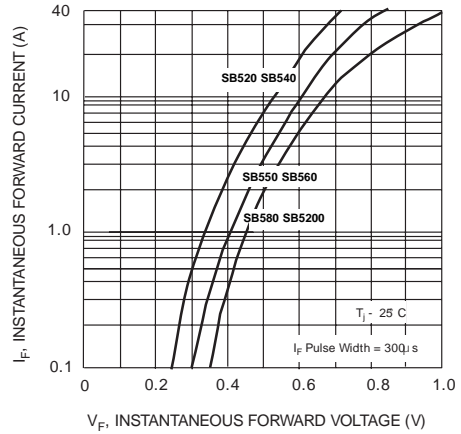


Fig. 2 Typical Forward Characteristics

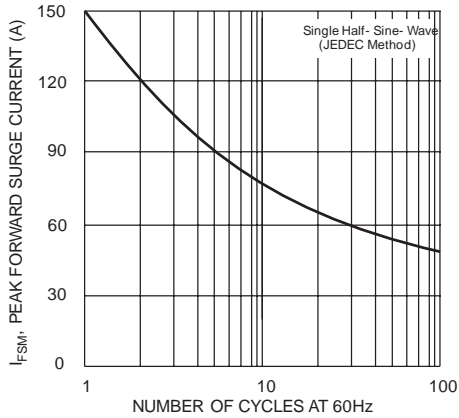


Fig. 3 Max Non- Repetitive Peak Fwd Surge Current

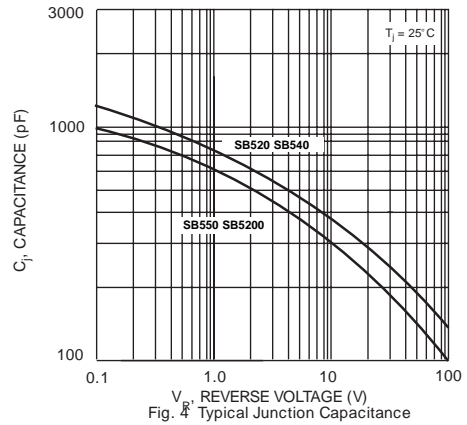


Fig. 4 Typical Junction Capacitance

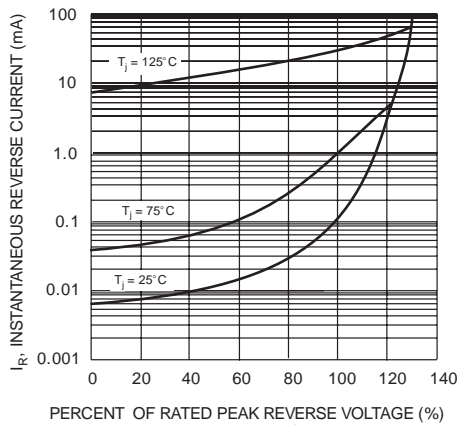


Fig. 5 Typical Reverse Characteristics