

5 Amp. Schottky Barrier Rectifiers

<p>DO-201AD (Plastic)</p> <p style="text-align: center;">Dimensions in mm.</p>	<p>Voltage 20 V to 200 V</p>	<p>Current 5.0 A</p>
	<ul style="list-style-type: none"> • Low power loss, high efficiency. • High current capability. low VF • High reliability • High surge current capability • Epitaxial construction • Guard-ring for transient protection • For use in low voltage, high frequency inverter, free wheeling, and polarity protection application <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Cases: DO-201AD molded plastic • Epoxy: UL 94V-0 rate flame retardant • Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed • Polarity: Color band denotes cathode • High temperature soldering guaranteed: 260 °C/10 seconds/9.5 mm lead lengths at 5 lbs., (2.3 Kg) tension • Weight: 1.1 g. 	

Maximum Ratings and Electrical Characteristics at 25 °C

		SB 520	SB 530	SB 540	SB 550	SB 560	SB 590	SB 5100	SB 5150	SB 5200
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	30	40	50	60	90	100	150	200
V_{RMS}	Maximum RMS Voltage (V)	14	21	28	35	42	63	70	105	140
V_{DC}	Maximum DC Blocking Voltage (V)	20	30	40	50	60	90	100	150	200
$I_{F(AV)}$	Maximum Average Forward Rectified Current (See graphic)	5.0 A								
I_{FSM}	8.3 ms. Peak Forward Surge Current (Jedec Method)	120 A								
C_j	Typical Junction Capacitance (Note 2)	250 pF			210 pF		120 pF			
T_j	Operating Temperature Range	-65 to +150 °C								
T_{stg}	Storage Temperature Range	-65 to +150 °C								

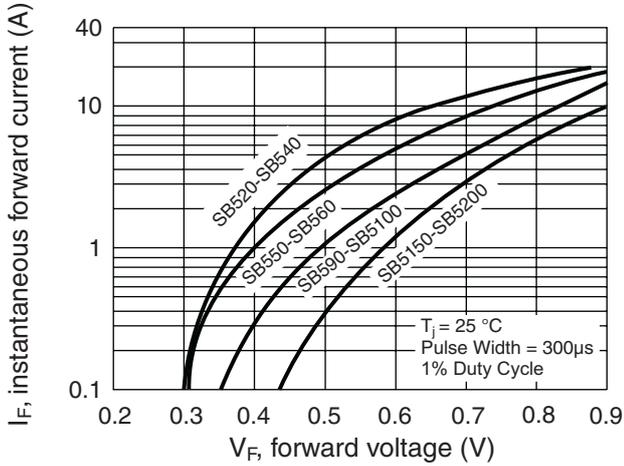
Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Instantaneous Forward Voltage $I_F = 5.0$ A	0.55 V	0.70 V	0.85 V	1.05 V
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25$ °C $T_a = 125$ °C	0.5 mA			0.1 mA
		15 mA	10 mA	5 mA	1 mA
$R_{th(j-a)}$ $R_{th(j-c)}$	Typical Thermal Resistance (Note 1)	35 °C/W 6 °C/W			

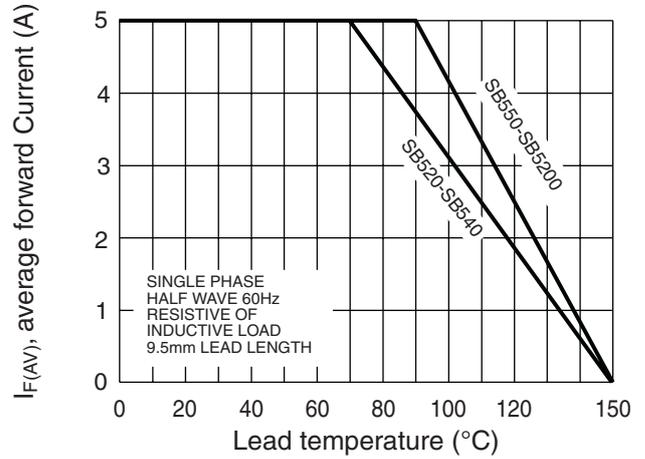
NOTES: 1. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

Rating And Characteristic Curves

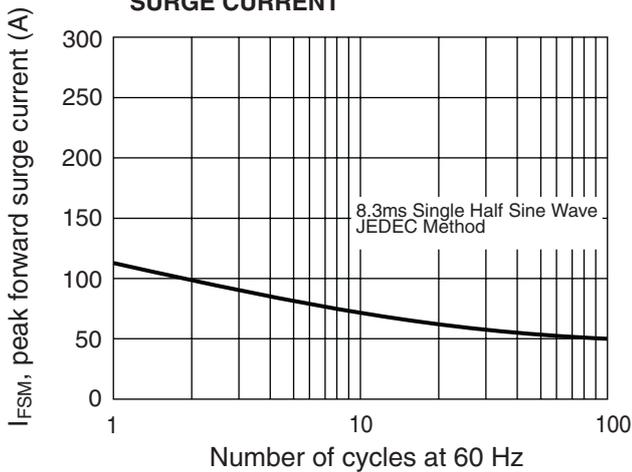
TYPICAL FORWARD CHARACTERISTIC



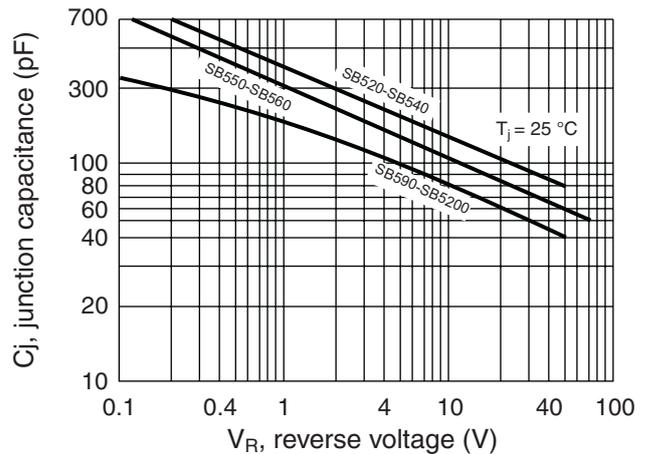
MAXIMUM FORWARD CURRENT DERATING CURVE



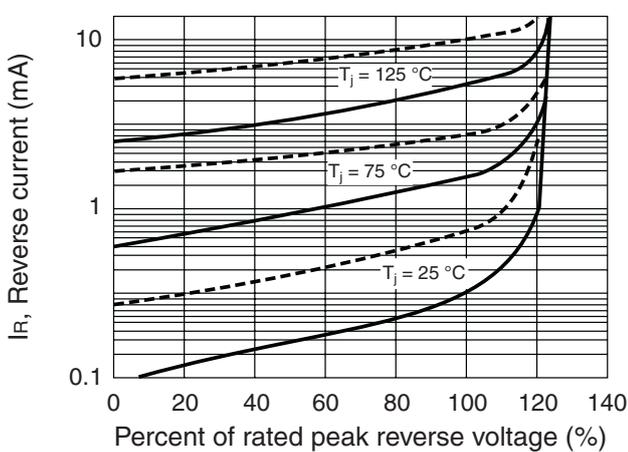
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL CHARACTERISTIC

