

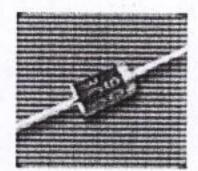
# SB520 thru SB5D0

Reverse Voltage 20 to 200 Volts

Schottky Barrier Rectifiers Forward Current 5.0 Amperes

#### **Features**

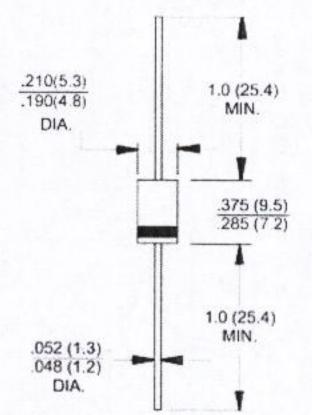
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- ◆ Guardring for overvoltage protection



#### DO-201AD

### **Mechanical Data**

- ◆ Case: JEDEC DO-201AD molded plastic body
- ◆ Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026 High temperature soldering guaranteed: 250°C/10 seconds 0.375" (9.5mm) lead length, 5lbs (2.3kg) tension
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any
- ♦ Weight: 0.041 ounce, 1.15 grams



Dimensions in inches and (millimeters)

# Maximum Ratings and Electrical Characteristics

(T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbols	\$8520	SB530	SB540	SB550	SB560	SB590	SB5B0	SB5D0	Units
Maximum repetitive peak reverse voltage	V	20	30	40	50	60	90	100	200	Volts
Maximum RMS voltage	V <sub>PME</sub>	14	21	28	35	42	63	70	140	Volts
Maximum DC blocking voltage	V <sub>BC</sub>	20	30	40	50	60	90	100	200	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (See Fig.1)	I <sub>F(M2)</sub>	5.0								Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at rated T	FERN	200.0 150.0							Amps	
Max. instantaneous forward voltage at 5.0A (Note 1)	V,	0.55 0.67 0.85					1,200	Volts		
Maximum instantaneous reverse current @T <sub>x</sub> = 25°C at rated DC blocking voltage (Note 1) @T <sub>x</sub> =100°C	l <sub>R</sub>	0.5					0.2		0.01	
			50		2	5	1	0	10	mA
Typical thermal resistance (Note 2)	R <sub>ed</sub> R <sub>el</sub>	35 2 2							°C/W	
Operating junction temperature range	T,	-55 to +150							°C	
Storage temperature range	Тепо	-55 to +150								°C

Notes:

- 1. Pulse test: 300us pulse width, 1% duty cycle
- 2. Thermal resistance junction to lead vertical P.C.B. mounted, 0.375" (9.5mm) lead length

## RATINGS AND CHARACTERISTIC CURVES

(TA = 25°C unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE 3 AVERAGE FORWARD CURRENT SINGLE PHASE HALF WAVE 60Hz RESISTIVE OF INDUCTIVE LOAD 100 120 150 40 20 LEAD TEMPERATURE (°C)

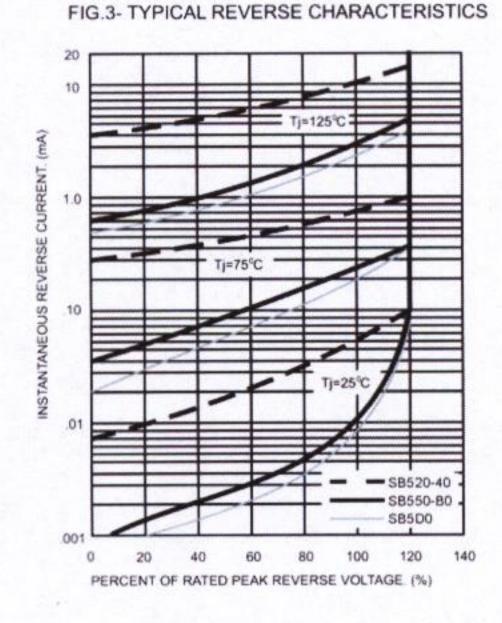


FIG.2- MAXIMUM NON-REPETITIVE FORWARD

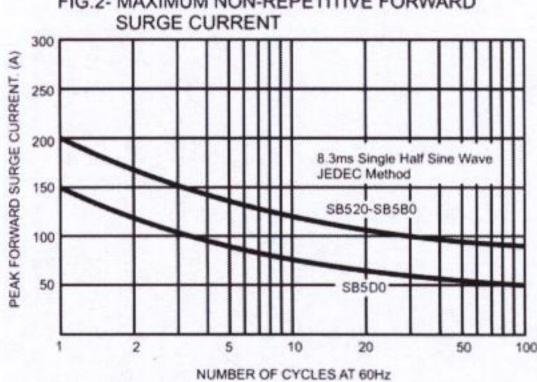


FIG.4- TYPICAL FORWARD CHARACTERISTICS

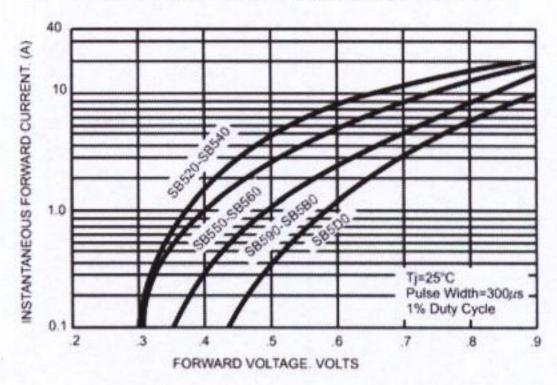
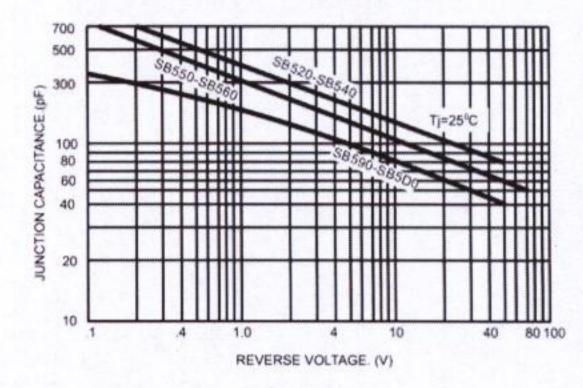


FIG.5- TYPICAL JUNCTION CAPACITANCE



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SK33A-TP SK34B-TP SS3003CH-TL-E PDS3100Q-7 GA01SHT18 CRS10I30A(TE85L,QM MA4E2501L-1290 MBRB30H30CT-1G
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