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## SB1020 thru SB10100

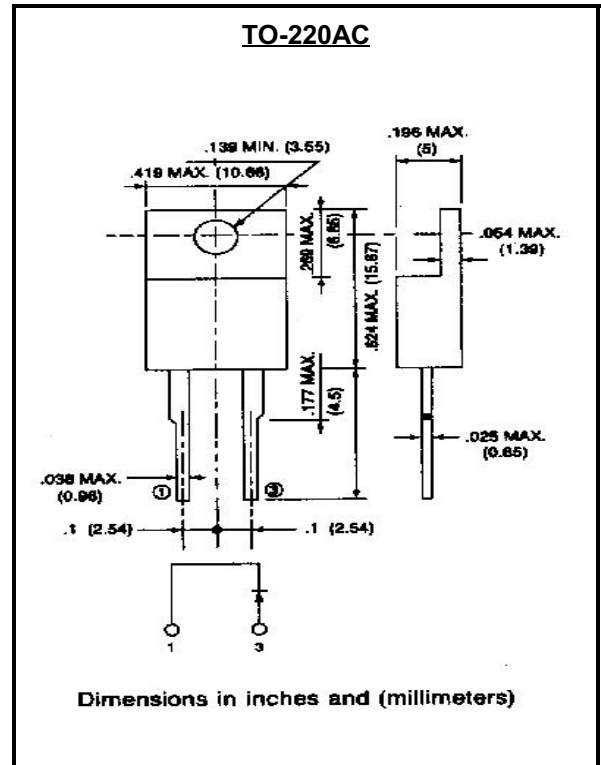
**10 Amp Scottky Barrier Rectifier**  
**Voltage - 20 to 100 Volts**  
**Current - 10.0 Amperes**

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

Case: TO-220AC molded plastic  
 Terminals: Leads, solderable per MIL-STD-202, Method 208  
 Polarity: As marked  
 Mounting Position: Any  
 Weight: 0.08 ounce, 2.24 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load Single phase half wave 60Hz.

For capacitive load, derate current by 20%.

	SB1020	SB1030	SB1040	SB1050	SB1060	SB1080	SB10100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	26	35	42	56	80	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at T <sub>c</sub> =100°C	10.0							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JEDEC method)	150							A
Maximum Forward Voltage at 10.0A per element	0.55		0.75		0.85			V
Maximum DC Reverse Current at Rated T <sub>c</sub> =25°C	0.5							mA
DC Blocking Voltage per element T <sub>c</sub> =100°C	50							
Typical Thermal Resistance Note R <sub>θJA</sub>	60							°C/W
Operating and Storage Temperature Range T <sub>J</sub>	-50 TO +150							°C

### NOTES:

Thermal Resistance Junction to Ambient

RATING AND CHARACTERISTIC CURVES

SB1020 THRU SB10100

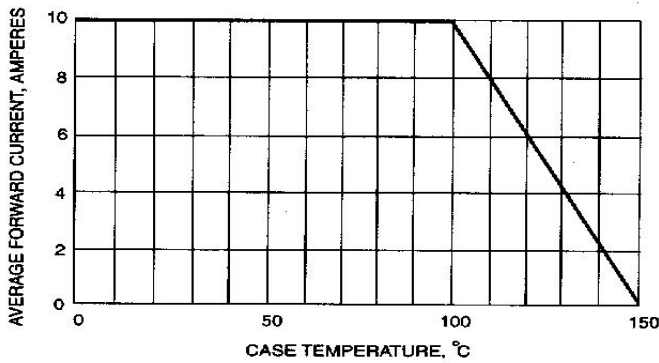


Fig. 1-FORWARD CURRENT DERATING CURVE

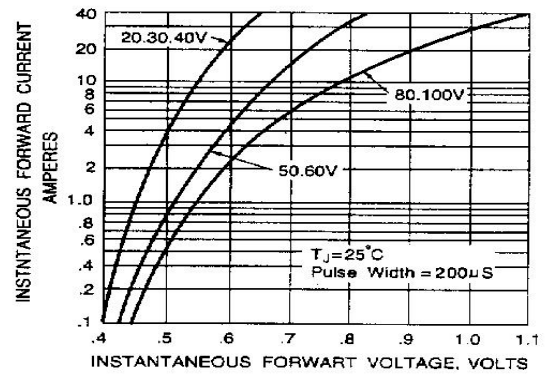


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

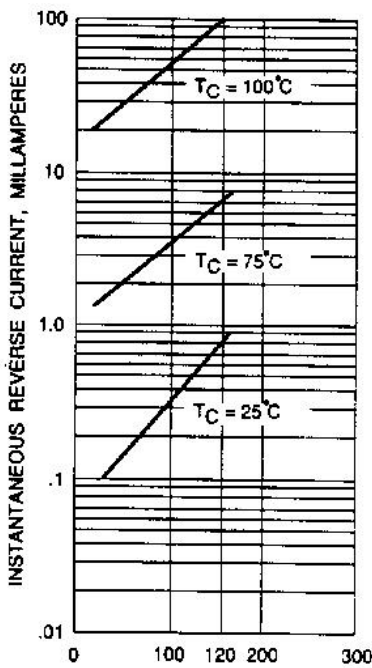


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

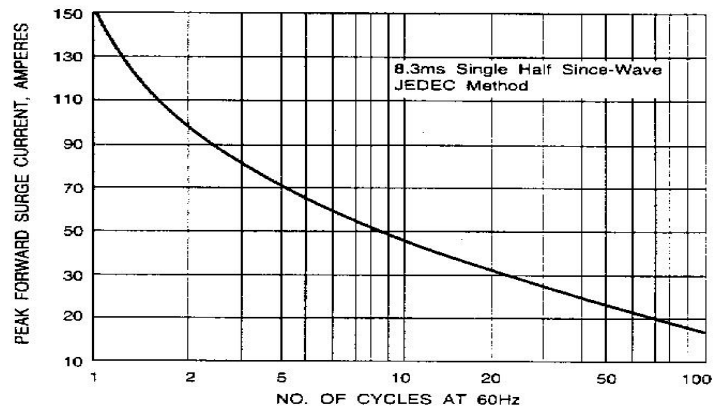


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

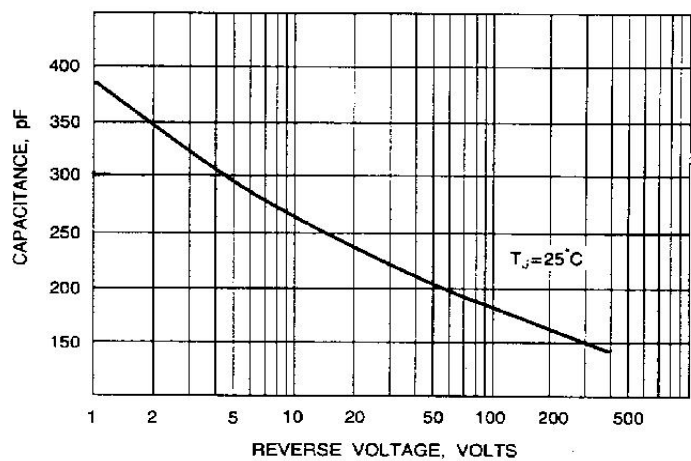


Fig. 5-TYPICAL JUNCTION CAPACITANCE