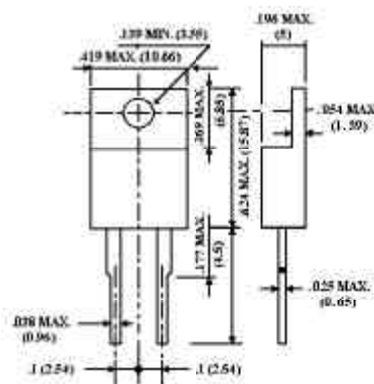


## TO-220AC

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 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



Dimensions in inches and (millimeters)

### 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 $T_C=100\text{ }^\circ\text{C}$	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 $T_C=25\text{ }^\circ\text{C}$	0.5							mA
DC Blocking Voltage per element $T_C=100\text{ }^\circ\text{C}$	50							
Typical Thermal Resistance Note $R_{\theta JKJA}$	60							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range $T_J$	-50 TO +150							$^\circ\text{C}$

### NOTES:

Thermal Resistance Junction to Ambient

RATING AND CHARACTERISTIC CURVES

SB1020 THRU SB10100

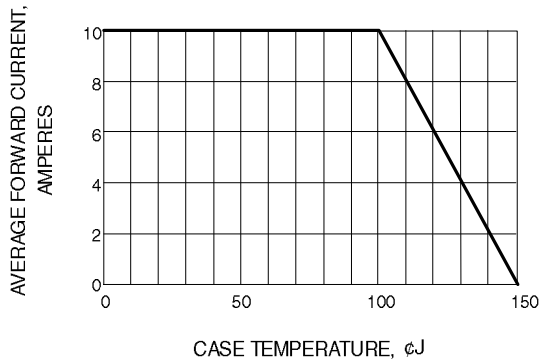


Fig. 1-FORWARD CURRENT DERATING CURVE

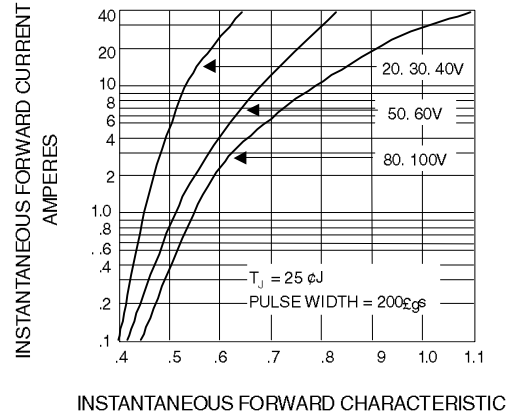


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

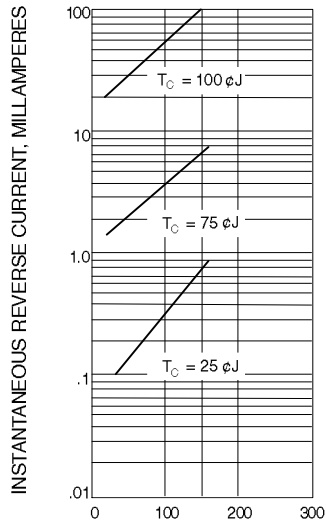


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

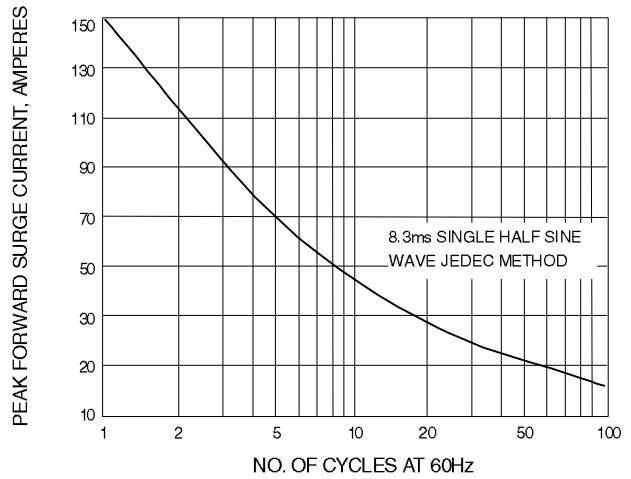


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

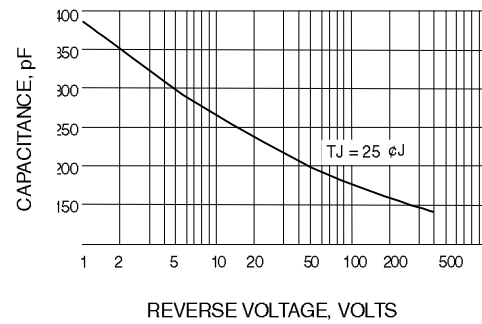


Fig. 5-TYPICAL JUNCTION CAPACITANCE