



# DATA SHEET

## SB1020~SB10100

### SCHOTTKY BARRIER RECTIFIERS

VOLTAGE- 20 to 100 Volts CURRENT - 10.0 Ampere

#### FEATURES

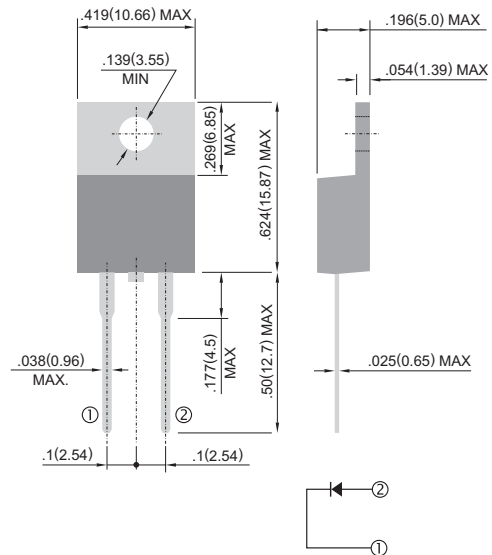
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage,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

#### MECHANICAL DATA

Case: TO-220AC Molded plastic  
 Terminals: Solder plated, solderable per MIL-STD-202, Method 208  
 Polarity: As marked.  
 Standard packaging: Any  
 Weight: 0.08 ounces, 2.24grams.

#### TO-220AC

Unit: inch ( mm )



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

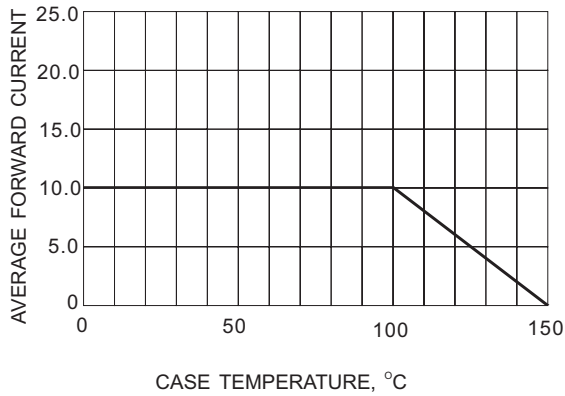
	SB1020	SB1030	SB1040	SB1050	SB1060	SB1080	SB10100	UNIT
Maximum Recurrent Peak Reverse Voltage	20.0	30.0	40.0	50.0	60.0	80.0	100.0	V
Maximum RMS Voltage	14.0	21.0	28.0	35.0	42.0	56.0	70.0	V
Maximum DC Blocking Voltage	20.0	30.0	40.0	50.0	60.0	80.0	100.0	V
Maximum Average Forward Rectified Current at Tc=90°C	10							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 10.0A per element	0.55		0.75		0.85		V	
Maximum DC Reverse Current (Note 1) Ta=25°C at Rated DC Blocking Voltage Ta=100°C	0.5			50			mA	
Typical Thermal Resistance Note RθJA	60							°C/W
Operating and Storage Temperature Range T <sub>J</sub>	-50 to +125							°C

#### NOTES:

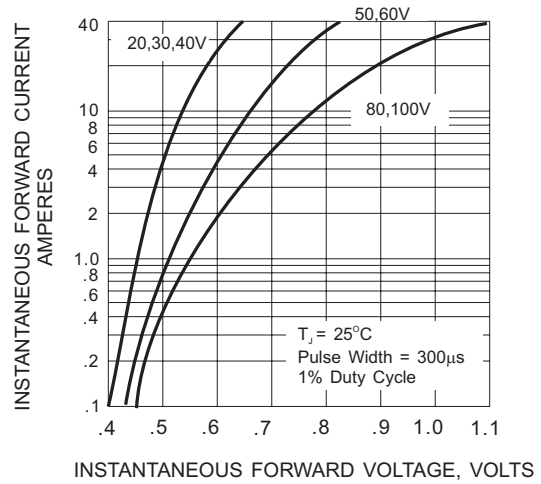
1. Thermal Resistance Junction to Ambient .



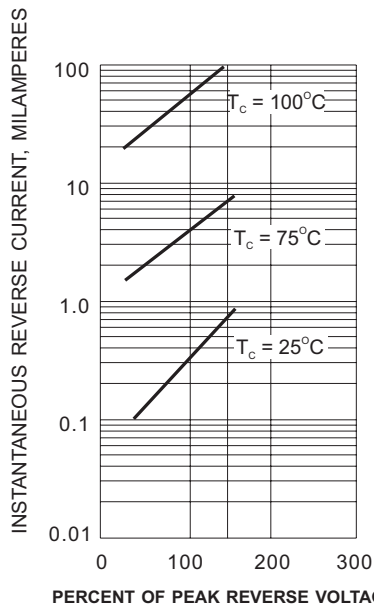
**RATING AND CHARACTERISTIC CURVES**



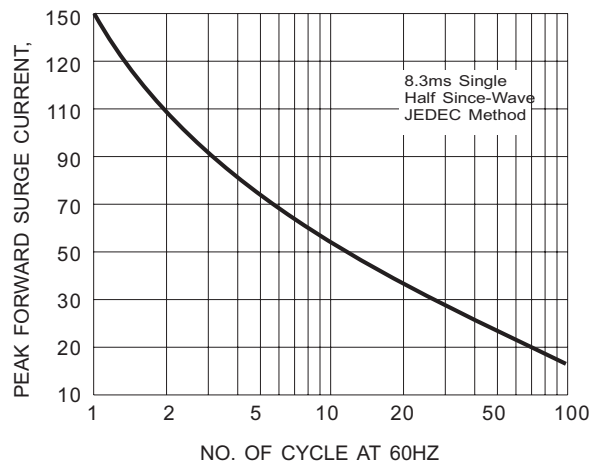
**Fig.1- FORWARD CURRENT DERATING CURVE**



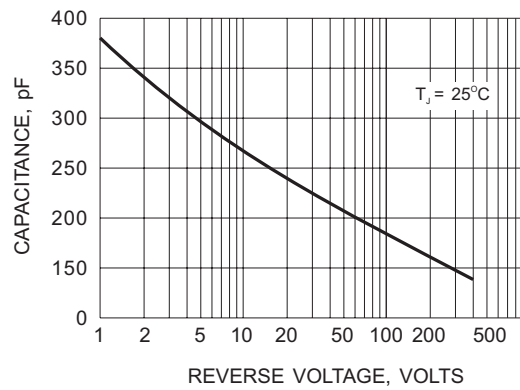
**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.5- TYPICAL JUNCTION CAPACITANCE**