



# DATA SHEET

## SB2020CT~SB20200CT

### SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 200 Volts **CURRENT** 20 Amperes

TO-220AB

Unit : inch (mm)

#### 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.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

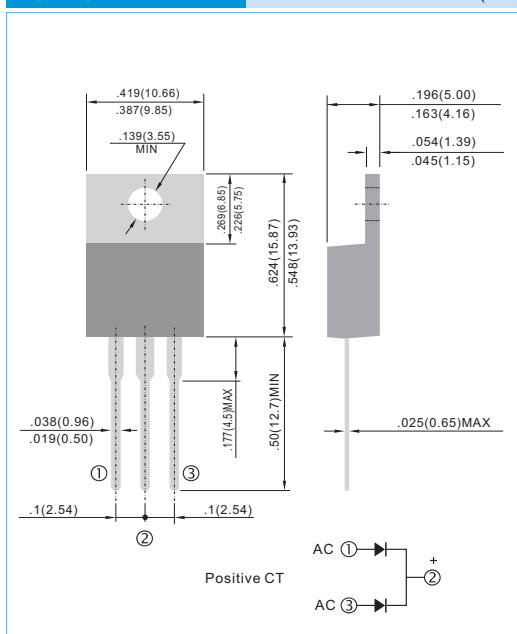
Case: TO-220AB Molded plastic

Terminals: Solder plated, solderable per MIL-STD-202G, Method 208

Polarity: As marked.

Standard packaging: Any

Weight: 0.08 ounces, 2.24grams.



#### 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%

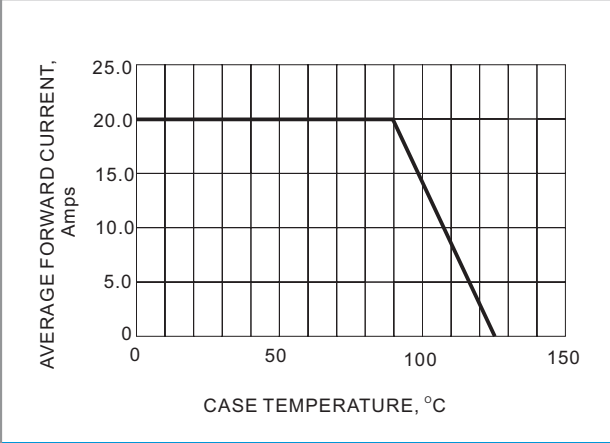
PARAMETER	SYMBOL	SB2020CT	SB2030CT	SB2040CT	SB2050CT	SB2060CT	SB2080CT	SB20100CT	SB20150CT	SB20200CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Current .375" (9.5mm) lead length at T <sub>c</sub> = 90 °C	I <sub>AV</sub>	20.0									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	200									A
Maximum Forward Voltage at 10.0A, per leg	V <sub>F</sub>	0.55		0.75		0.85		0.92		1	V
Maximum DC Reverse Current T <sub>A</sub> =25 °C at Rated DC Blocking Voltage T <sub>A</sub> =100°C	I <sub>R</sub>	0.5 100									mA
Typical Thermal Resistance	R <sub>θJC</sub>	2									°C / W
Operating Junction Temperature Range	T <sub>J</sub>	-50 TO +125									°C
Storage Temperature Range	T <sub>STG</sub>	-50 TO +150									°C

Note.

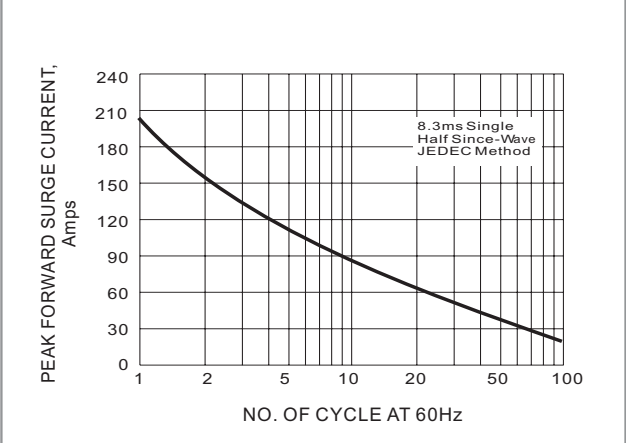
Both Bonding and Chip structure are available.



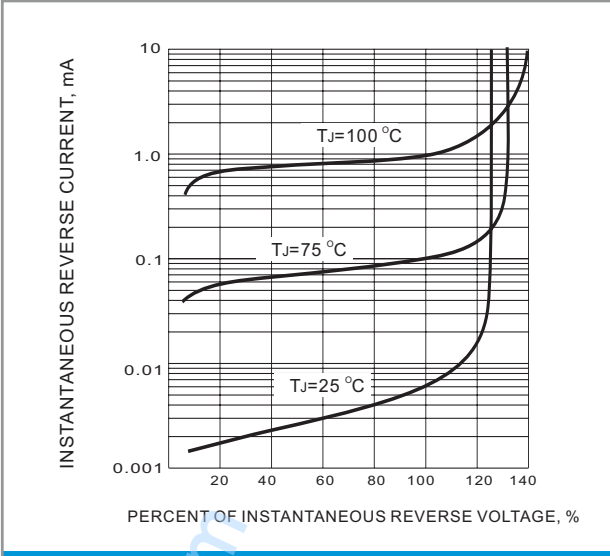
**RATING AND CHARACTERISTIC CURVES**



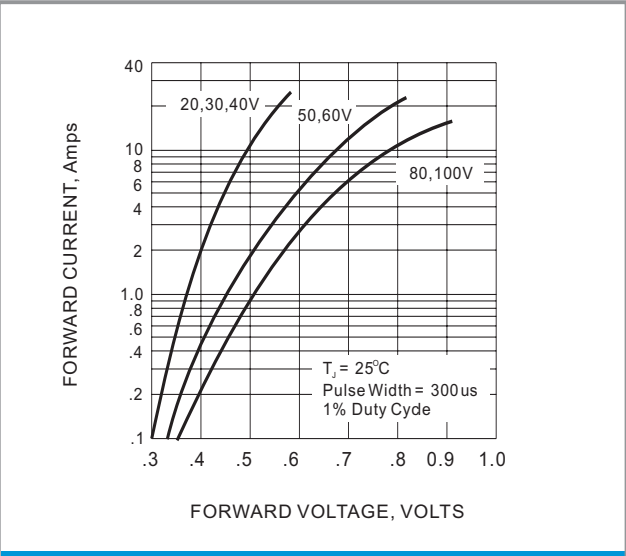
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

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