# SB2020CT SERIES

### SCHOTTKY BARRIER RECTIFIERS

20 to 60 Volt

CURRENT 20 Ampere

#### :95H F9G

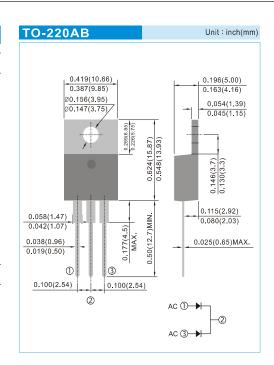
VOLTAGE

- 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 polarlity protection applications.
- Lead free in & { ] |ãe & Á ã @ ÓWÁU PÙÁE Á

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#### **MECHANCAL DATA**

- Case: TO-220AB Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.
- Standard packaging: Any
- Weight: 0.065 ounces, 1.859grams.



#### 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 | SB2045CT | SB2050CT | SB2060CT | UNITS |
|--|--------------------|-------------------------|----------|----------|----------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage   |                    | 20                      | 30       | 40       | 45       | 50       | 60       | V     |
| Maximum RMS Voltage  |                    | 14                      | 21       | 28       | 31       | 35       | 42       | V     |
| Maximum DC Blocking Voltage  |                    | 20                      | 30       | 40       | 45       | 50       | 60       | V     |
| Maximum Average Forward Current at T <sub>c</sub> =75°C                                | I <sub>F(AV)</sub> | 20                      |          |          |          |          |          | А     |
| Peak Forward Surge Current : 8.3ms single half<br>sine-wave superimposed on rated load | I <sub>FSM</sub>   | 200                     |          |          |          |          |          | A     |
| Maximum Forward Voltage at 10A per leg   | V <sub>F</sub>     | 0.55 0.75               |          |          | 75       | V        |          |       |
| Maximum DC Reverse Current at Rated T_=25 °C<br>DC Blocking Voltage T_=100°C           | I <sub>R</sub>     | 0.2<br>50               |          |          |          |          | mA       |       |
| Typical Thermal Resistance   | R <sub>ejc</sub>   | 2                       |          |          |          |          | °C / W   |       |
| Operating Junction Temperature Range   | T_                 | -55 to +125 -55 to +150 |          |          | °C       |          |          |       |
| Storage Temperature Range  | T <sub>stg</sub>   | -55 to +150             |          |          |          |          | °C       |       |

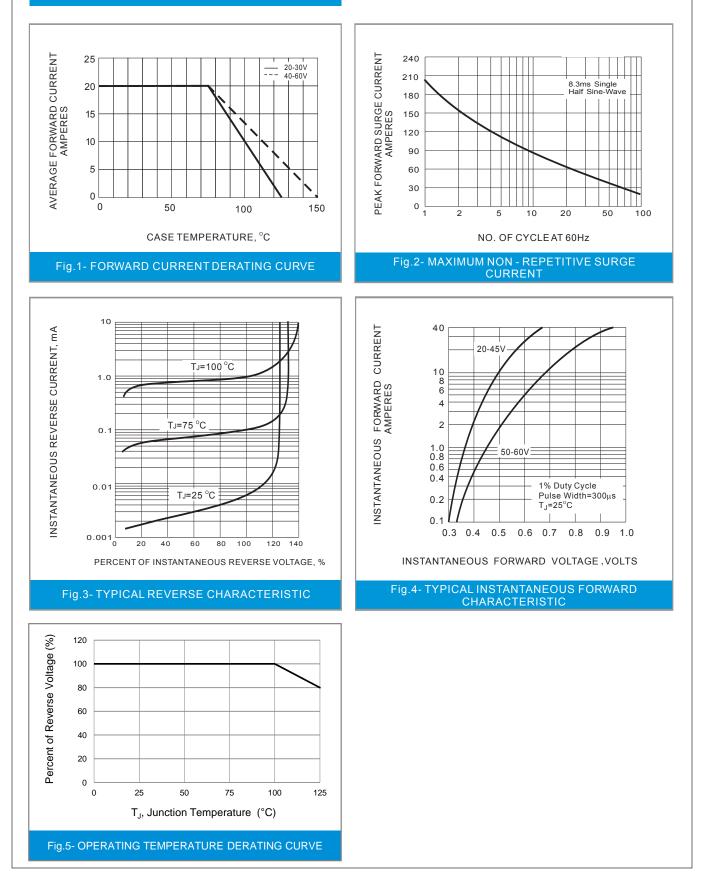
Note:

Both Bonding and Chip structure are available.

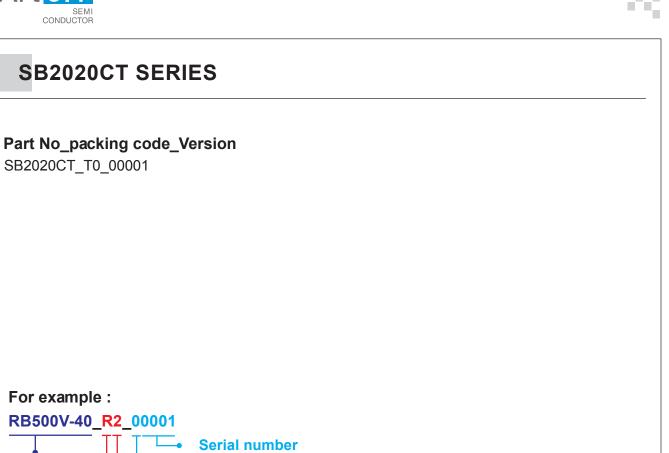


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### **RATING AND CHARACTERISTIC CURVES**









| Packing Code XX                         |                      |                                     |                      | Version Code XXXXX |                      |                                       |  |
|---|----------------------|-------------------------------------|----------------------|--------------------|----------------------|---------------------------------------|--|
| Packing type                            | 1 <sup>st</sup> Code | Packing size code                   | 2 <sup>nd</sup> Code | HF or RoHS         | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |  |
| Tape and Ammunition Box<br>(T/B)        | Α                    | N/A                                 | 0                    | HF                 | 0                    | serial number                         |  |
| Tape and Reel<br>(T/R)                  | R                    | 7"                                  | 1                    | RoHS               | 1                    | serial number                         |  |
| Bulk Packing<br>(B/P)                   | В                    | 13"                                 | 2                    |                    |                      |                                       |  |
| Tube Packing<br>(T/P)                   | т                    | 26mm                                | X                    |                    |                      |                                       |  |
| Tape and Reel (Right Oriented)<br>(TRR) | S                    | 52mm                                | Y                    |                    |                      |                                       |  |
| Tape and Reel (Left Oriented)<br>(TRL)  | L                    | PANASERT T/B CATHODE UP<br>(PBCU)   | U                    |                    |                      |                                       |  |
| FORMING                                 | F                    | PANASERT T/B CATHODE DOWN<br>(PBCD) | D                    |                    |                      |                                       |  |





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