



# SB2020CT~SB20200CT

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 200 Volt    **CURRENT** 20 Ampere

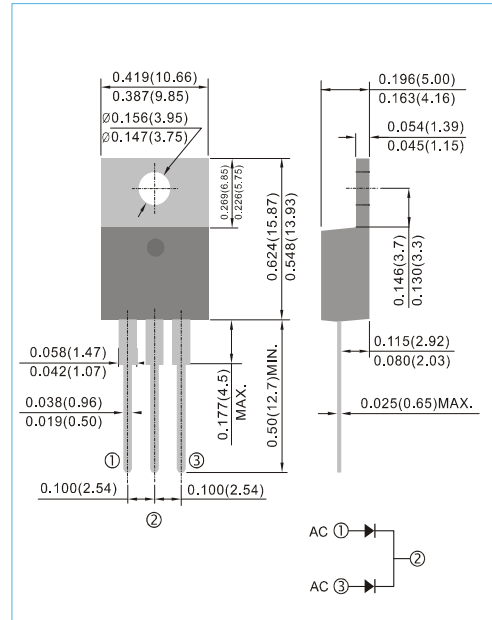
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- 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.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. (Halogen Free)

### MECHANICAL DATA

- Case: TO-220AB Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.067 ounces, 1.89 grams.

**TO-220AB**    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%

PARAMETER	SYMBOL	SB2020CT	SB2030CT	SB2040CT	SB2045CT	SB2050CT	SB2060CT	SB2080CT	SB20100CT	SB20150CT	SB20200CT	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	45	50	60	80	100	150	200	V	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	31	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	45	50	60	80	100	150	200	V	
Maximum Average Forward 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	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>	-55 to +125										°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150											

Note.

Both Bonding and Chip structure are available.



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## RATING AND CHARACTERISTIC CURVES

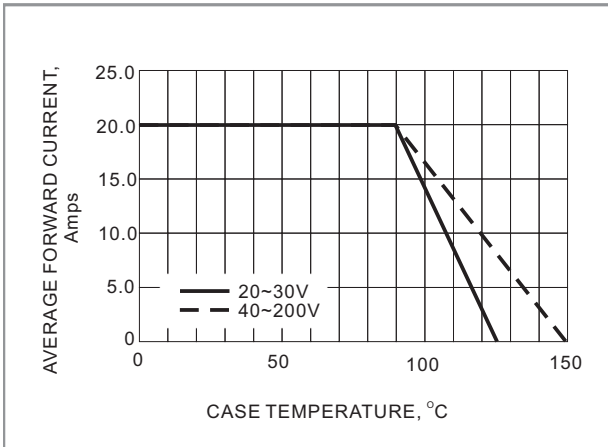


Fig. 1- FORWARD CURRENT DERATING CURVE

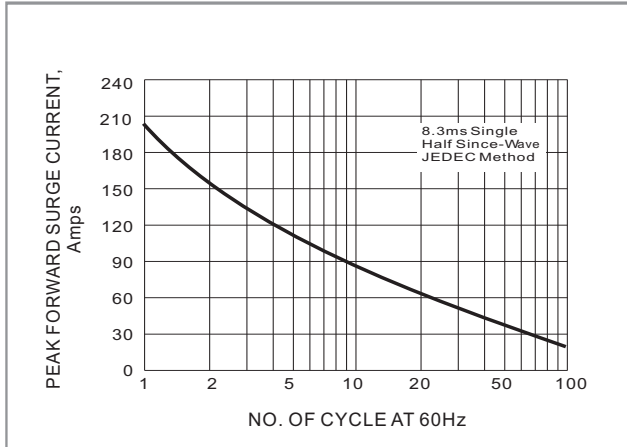


Fig. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

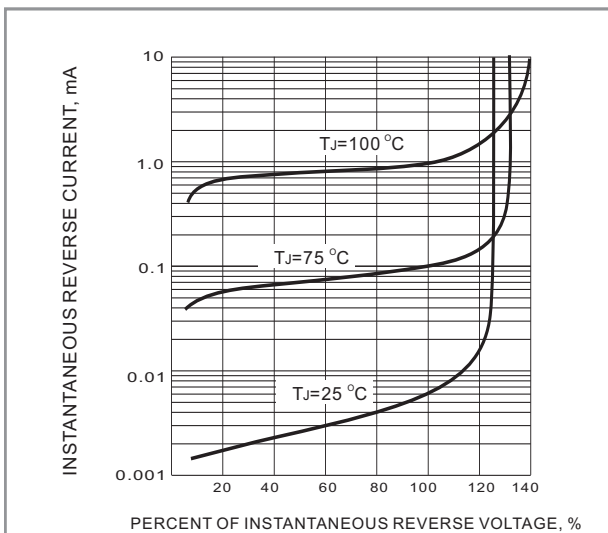


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

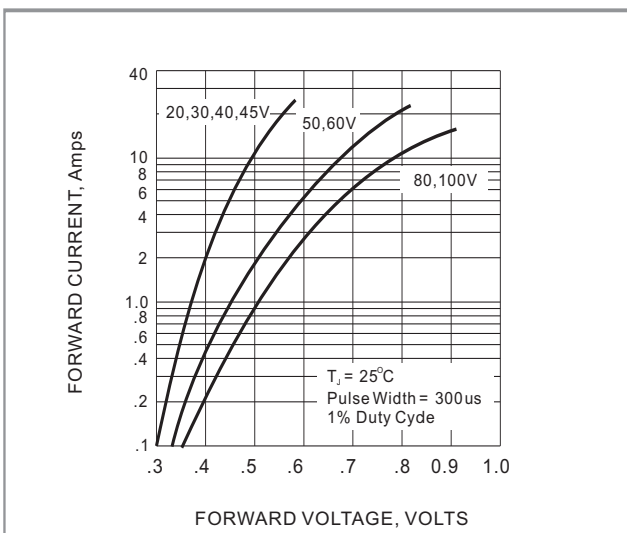


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

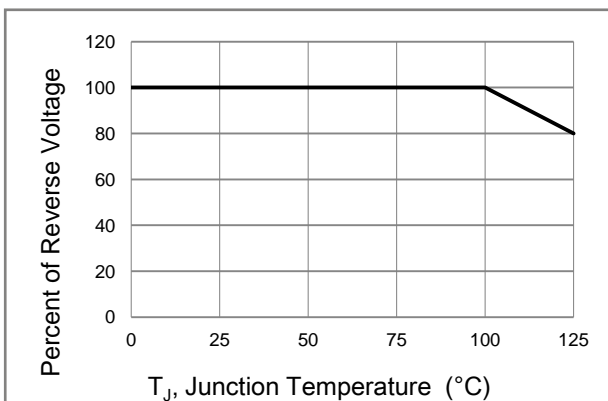


Fig. 5- Operating Temperature Derating Curve



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Part No\_packing code\_Version

SB2020CT\_T0\_00001

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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 (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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