

# SB2020FCT SERIES

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 60 Volt **CURRENT** 20 Ampere

### FEATURES

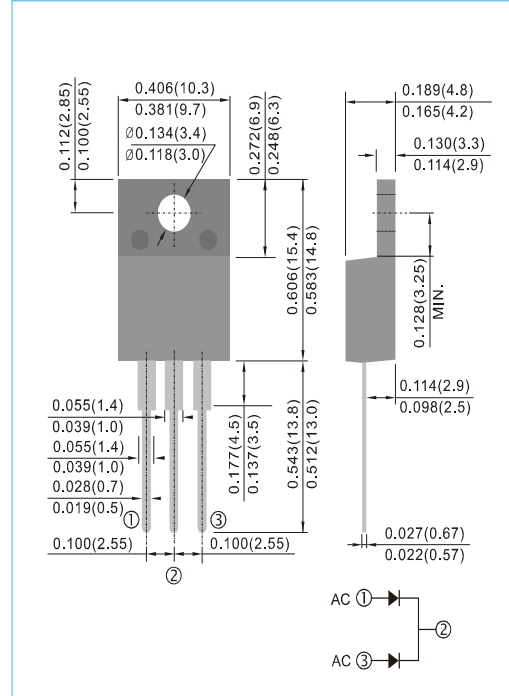
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage,high frequency inverters free wheeling , and polarity 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: ITO-220AB full Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.056 ounces, 1.6 grams

### ITO-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	SB2020FCT	SB2030FCT	SB2040FCT	SB2045FCT	SB2050FCT	SB2060FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	45	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	31	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	45	50	60	V
Maximum Average Forward Current at T <sub>C</sub> =75 °C	I <sub>F(AV)</sub>	20						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 10A per leg	V <sub>F</sub>	0.55				0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25 °C T <sub>J</sub> =100°C	I <sub>R</sub>	0.2 50						mA
Typical Thermal Resistance per diode	R <sub>θJC</sub>	2						°C / W
Operating Junction Temperature Range	T <sub>J</sub>	-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

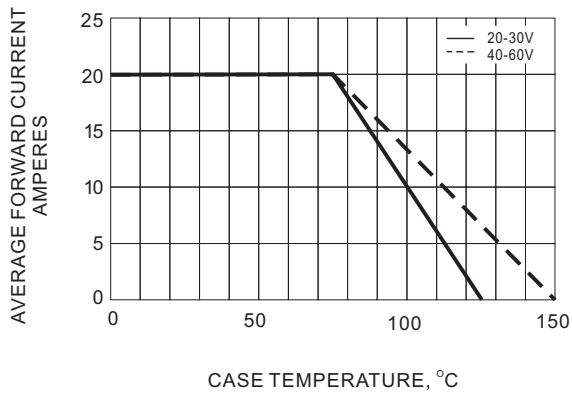


Fig.1- FORWARD CURRENT DERATING CURVE

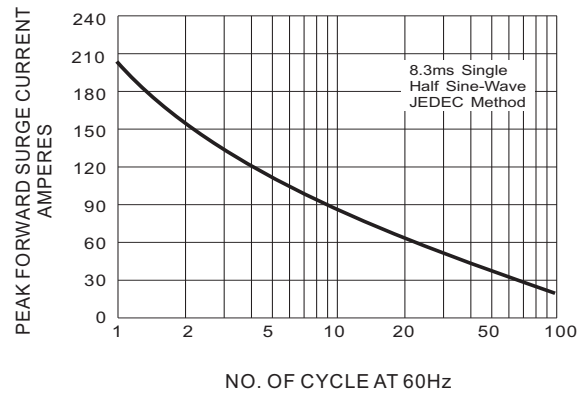


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

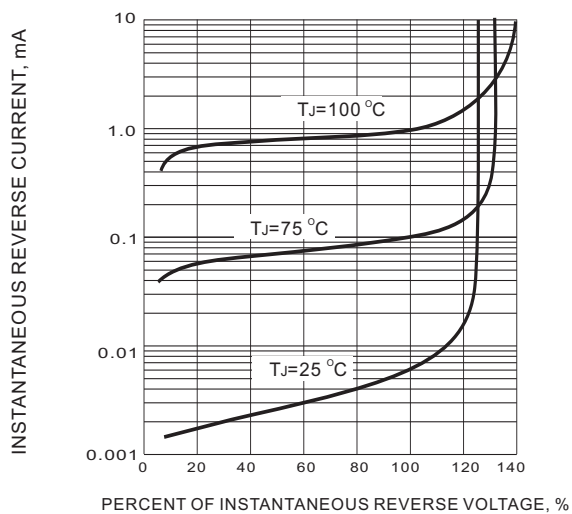


Fig.3- TYPICAL REVERSE CHARACTERISTIC

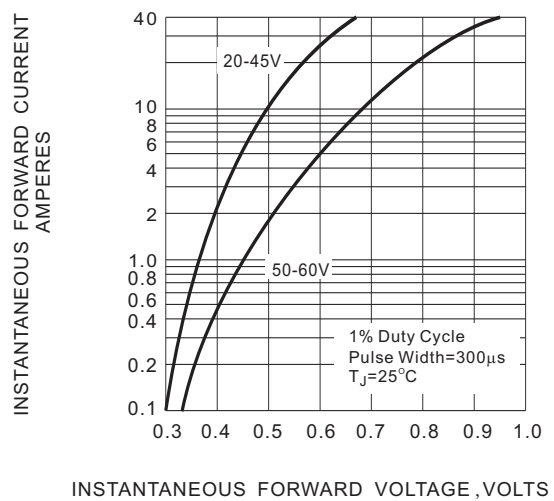


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

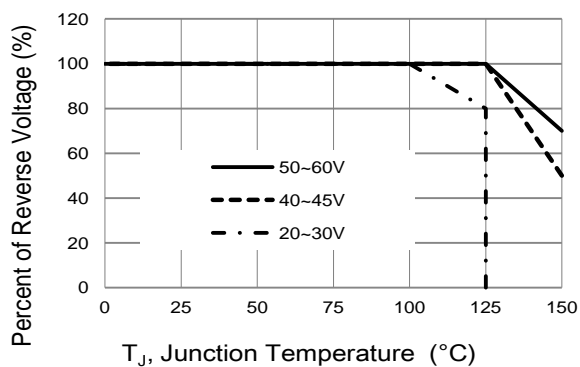


Fig.5 Operating Temperature Derating Curve

## SB2020FCT SERIES

Part No\_packing code\_Version

SB2020FCT\_T0\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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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