



# SBT20100VFCT

## ULTRA LOW VF SCHOTTKY RECTIFIER

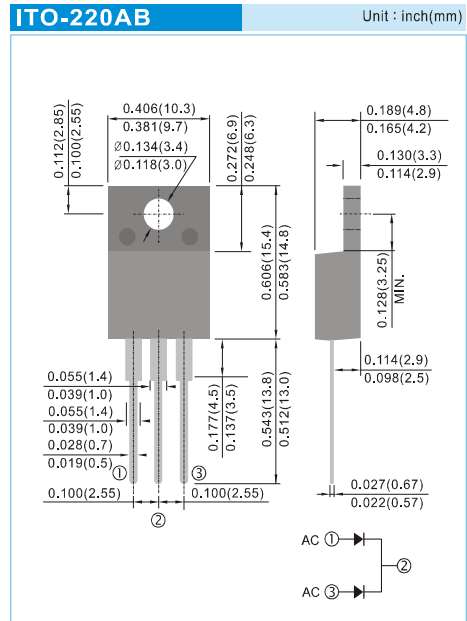
**VOLTAGE** 100 Volt **CURRENT** 20 Ampere

### FEATURES

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : ITO-220AB, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight : 0.056 ounces, 1.6 grams.



### MAXIMUM RATINGS( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	V
Maximum rms voltage	$V_{RMS}$	70	V
Maximum dc blocking voltage	$V_R$	100	V
Maximum average forward rectified current	$I_{F(AV)}$	20 10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150	A
Typical junction capacitance ( $V_R=4V$ , $f=1\text{MHz}$ )	$C_J$	620	pF
Typical thermal resistance per diode (Note 1)	$R_{\theta JC}$	5	$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to + 150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^\circ\text{C}$

Note : 1. Mounted on infinite heatsink.



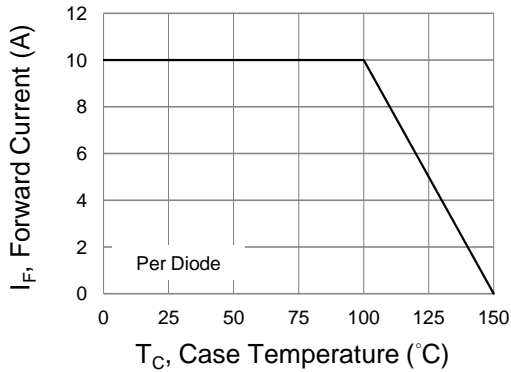
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## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

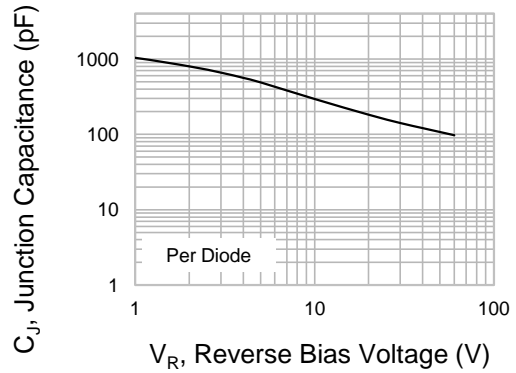
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$ $T_J=25^{\circ}\text{C}$	100	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=3\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.47	-	V
		$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.53	-	
		$I_F=10\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.66	0.71	
		$I_F=3\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.4	-	V
$I_F=5\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.49	-			
$I_F=10\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.61	-			
Reverse current per diode	$I_R$	$V_R=70\text{V}$ $T_J=25^{\circ}\text{C}$	-	5	-	$\mu\text{A}$
		$V_R=100\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	80	$\mu\text{A}$
		$V_R=100\text{V}$ $T_J=125^{\circ}\text{C}$	-	7.2	-	mA



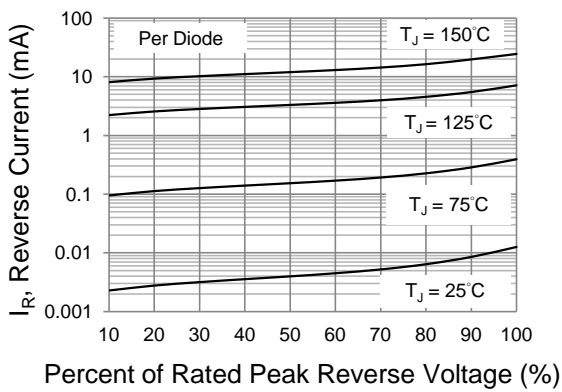
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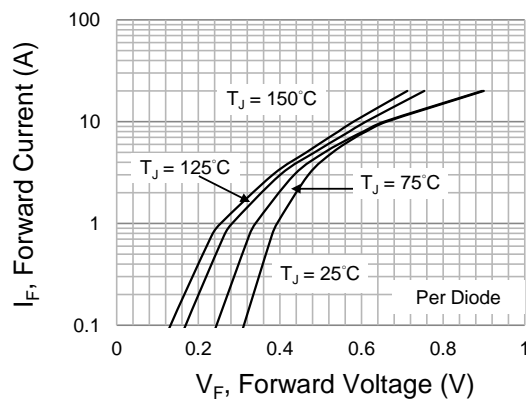
**Fig.1 Forward Current Derating Curve**



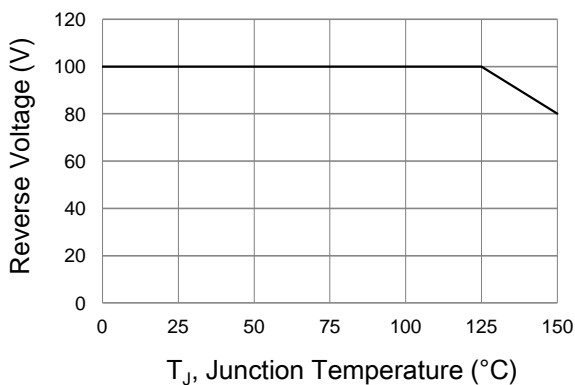
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**



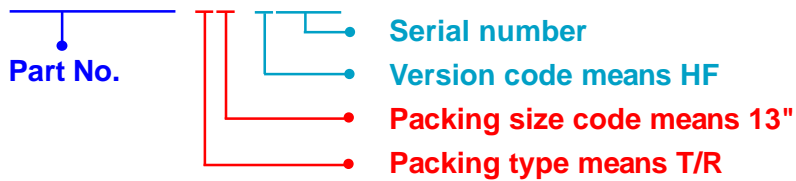
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**Part No\_packing code\_Version**

SBT20100VFCT\_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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