



# SBT20100VFCT

## ULTRA LOW VF SCHOTTKY RECTIFIER

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

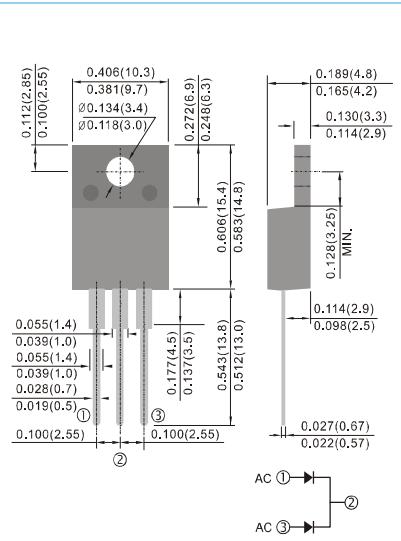
### FEATURES

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

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

**ITO-220AB**



### 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 per device per diode	$I_{F(AV)}$	20 10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode	$I_{FSM}$	150	A
Typical junction capacitance ( $V_R=4\text{V}$ , $f=1\text{MHz}$ )	$C_J$	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<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V <sub>BR</sub>	I <sub>R</sub> =0.5mA T <sub>J</sub> =25°C	100	-	-	V
Instantaneous forward voltage per diode	V <sub>F</sub>	I <sub>F</sub> =3A T <sub>J</sub> =25°C	-	0.47	-	V
		I <sub>F</sub> =5A T <sub>J</sub> =25°C	-	0.53	-	
		I <sub>F</sub> =10A T <sub>J</sub> =25°C	-	0.66	0.71	
	I <sub>R</sub>	I <sub>F</sub> =3A T <sub>J</sub> =125°C	-	0.4	-	V
		I <sub>F</sub> =5A T <sub>J</sub> =125°C	-	0.49	-	
		I <sub>F</sub> =10A T <sub>J</sub> =125°C	-	0.61	-	
Reverse current per diode	I <sub>R</sub>	V <sub>R</sub> =70V T <sub>J</sub> =25°C	-	5	-	µA
		V <sub>R</sub> =100V T <sub>J</sub> =25°C T <sub>J</sub> =125°C	-	-	80	µA mA
				7.2	-	



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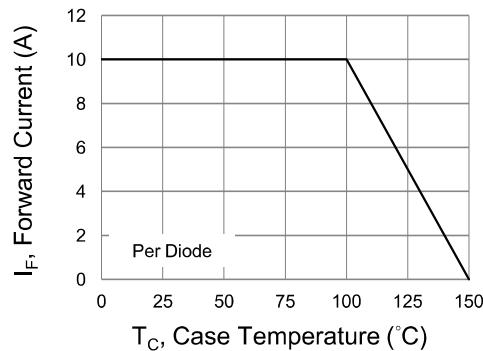


Fig.1 Forward Current Derating Curve

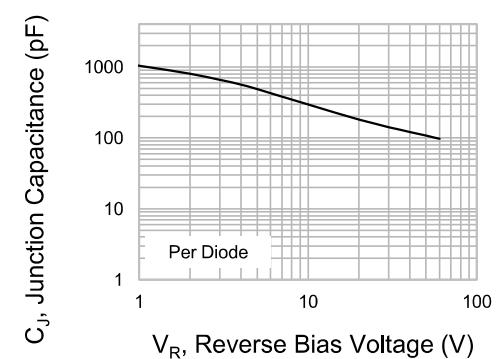


Fig.2 Typical Junction Capacitance

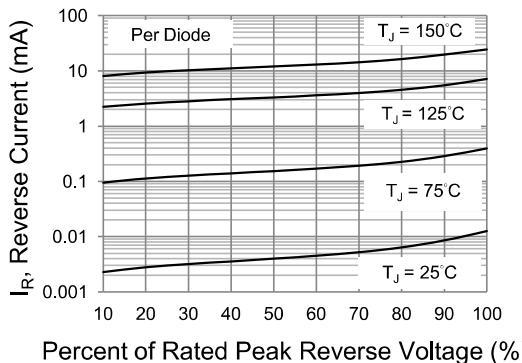


Fig.3 Typical Reverse Characteristics

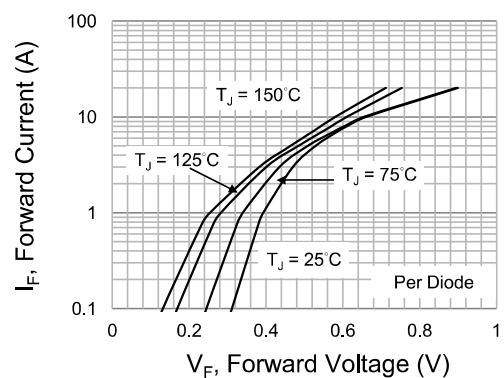


Fig.4 Typical Forward Characteristics

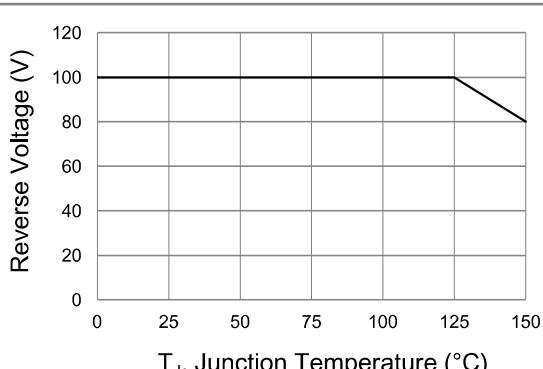


Fig.5 Operating Temperature Derating Curve



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### Part No\_packing code\_Version

SBT20100VFCT\_T0\_00001

For example :

**RB500V-40\_R2\_00001**

- Serial number
- Version code means HF
- Packing size code means 13"
- Packing type means T/R

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



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