



# SBT20100VCT

## ULTRA LOW VF SCHOTTKY RECTIFIER

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

### FEATURES

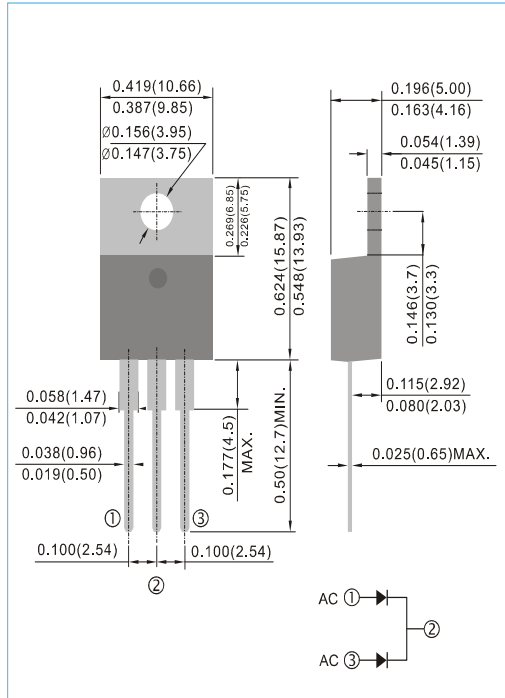
- Ultra Low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case : TO-220AB, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight : 0.067 ounces, 1.89 grams

### TO-220AB

Unit : inch(mm)



### MAXIMUM RATINGS(T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Maximum rms voltage	V <sub>RMS</sub>	70	V
Maximum dc blocking voltage	V <sub>R</sub>	100	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	20 10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150	A
Typical junction capacitance (V <sub>R</sub> =4V, f=1MHz)	C <sub>J</sub>	620	pF
Typical thermal resistance per diode (Note 1)	R <sub>θJC</sub>	2	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to + 150	°C
Storage temperature range	T <sub>STG</sub>	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.



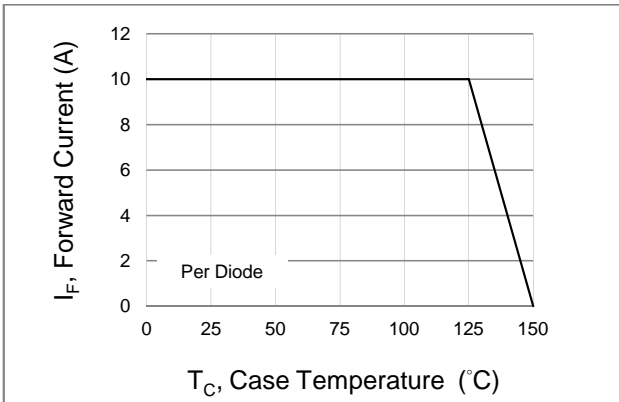
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## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

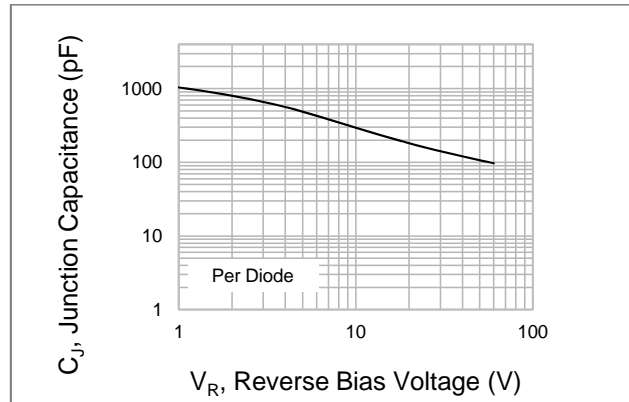
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$	100	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=3\text{A}$	-	0.47	-	V
		$I_F=5\text{A}$	-	0.53	-	
		$I_F=10\text{A}$	-	0.66	0.71	
		$I_F=3\text{A}$	-	0.4	-	V
$I_F=5\text{A}$	-	0.49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



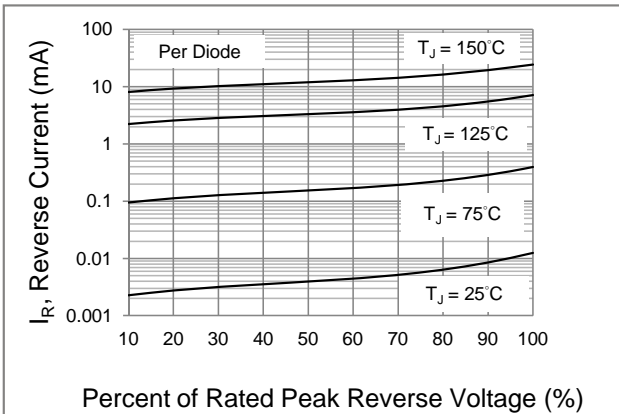
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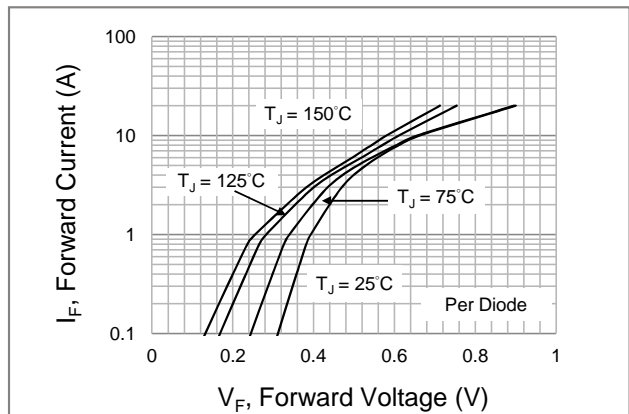
**Fig.1 Forward Current Derating Curve**



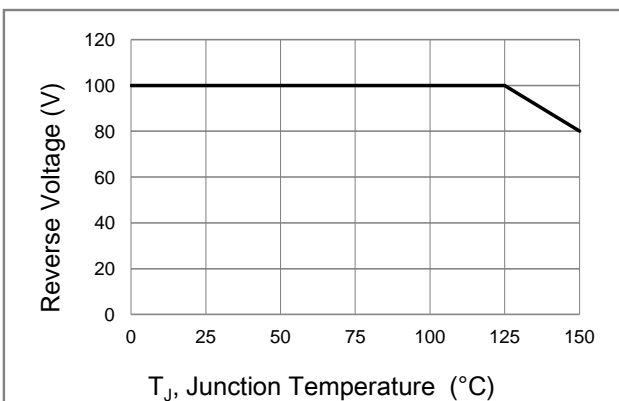
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**



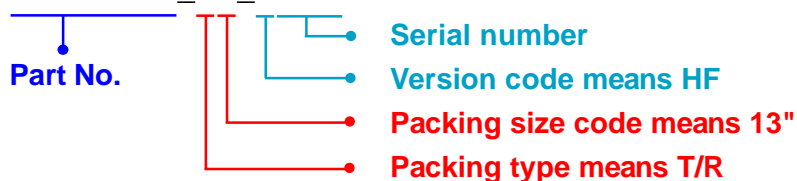
# SBT20100VCT

**Part No\_packing code\_Version**

SBT20100VCT\_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)	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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