



# SBT10100VSS

## ULTRA LOW VF SCHOTTKY RECTIFIER

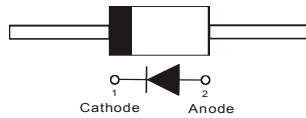
**VOLTAGE** 100 Volt **CURRENT** 10 Ampere

### FEATURES

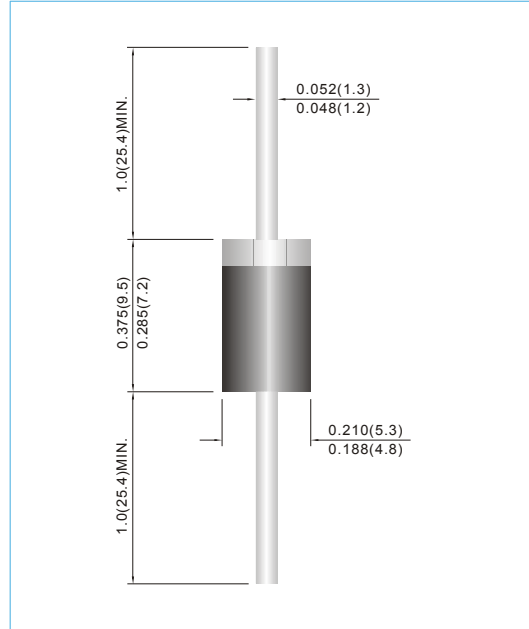
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2.0

### MECHANICAL DATA

- Case : Molded plastic, DO-201AD
- Terminals : Axial leads,solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx weight : 0.0402 ounces, 1.142 grams



**DO-201AD** 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>	10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120	A
Typical thermal resistance	(Note 1) R <sub>θJA</sub> (Note 2) R <sub>θJL</sub>	60 10	°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.The testing condition of the thermal resistance (junction to ambient) is based on 10 mm lead length between mini copper pad.

2.The testing condition of the thermal resistance (junction to lead) is based on 0 mm lead length between two 10cm x 10cm x1mm copper pad.



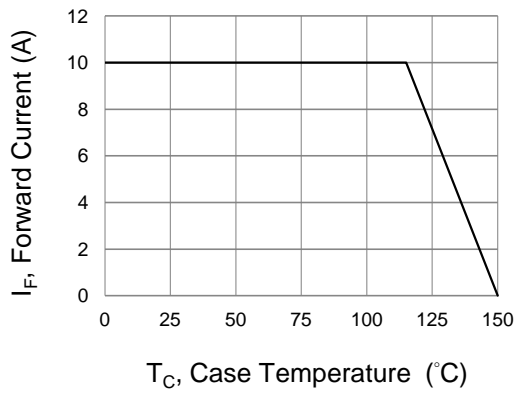
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## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

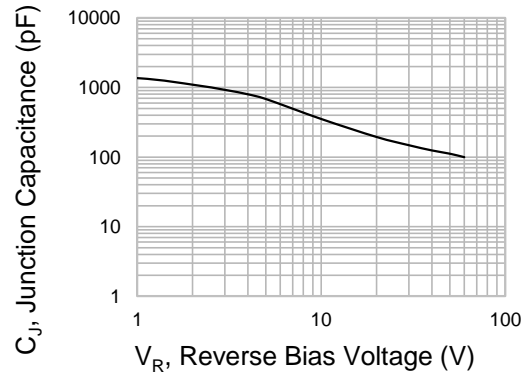
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$ $T_J=25^{\circ}\text{C}$	100	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$	-	0.4	-	V
		$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.53	-	
		$I_F=10\text{A}$	-	0.68	0.74	
		$I_F=1\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.29	-	V
Reverse current	$I_R$	$V_R=80\text{V}$ $T_J=25^{\circ}\text{C}$	-	5	-	$\mu\text{A}$
		$V_R=100\text{V}$ $T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$	-	-	50	$\mu\text{A}$ mA



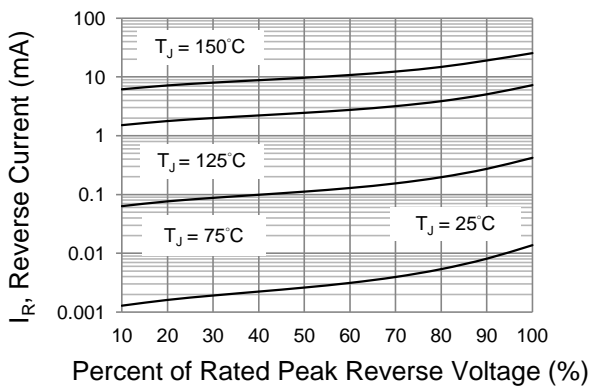
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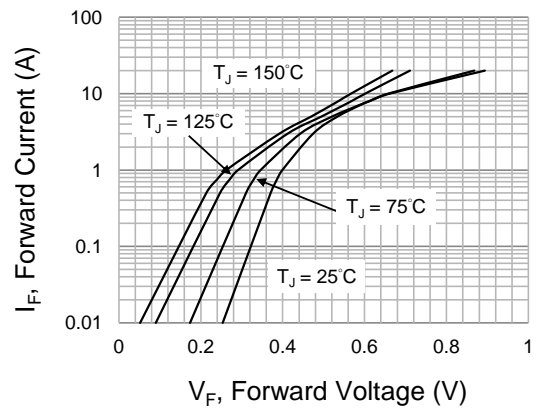
**Fig.1 Forward Current Derating Curve**



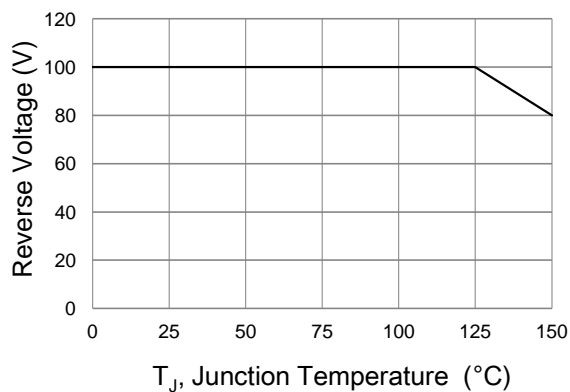
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**



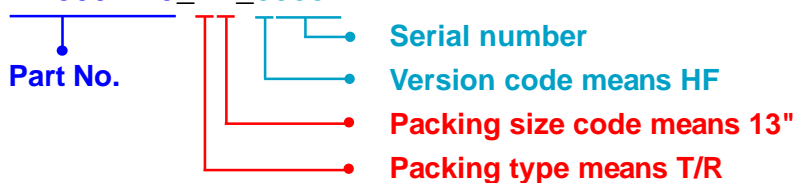
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## Part No\_packing code\_Version

SBT10100VSS\_AY\_00001  
 SBT10100VSS\_AY\_10001  
 SBT10100VSS\_B0\_00001  
 SBT10100VSS\_B0\_10001  
 SBT10100VSS\_R2\_00001  
 SBT10100VSS\_R2\_10001

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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