



# SBT3100XSS

## EXTREME LOW VF SCHOTTKY RECTIFIER

**Voltage**

**100 V**

**Current**

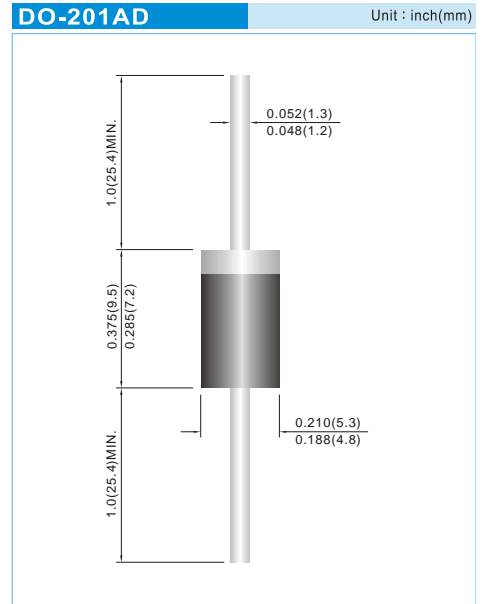
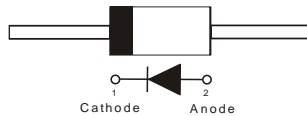
**3 A**

### Features

- Extreme low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive.

### 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
- Marking: Part number



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

PARAMETER	SYMBOL	LIMIT	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	$I_{F(AV)}$	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50	A
Typical thermal resistance (Note 1)	$R_{\theta JL}$	23	$^{\circ}\text{C/W}$
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. The testing condition of the thermal resistance (junction to lead) is based on 10mm lead length between two 10 x 10cm copper pad heatsinks.



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Electrical Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	$T_J=25^\circ\text{C}$	100	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$	$T_J=25^\circ\text{C}$	-	0.44	-	V
		$I_F=3\text{A}$	$T_J=25^\circ\text{C}$	-	0.55	0.6	V
		$I_F=1\text{A}$	$T_J=125^\circ\text{C}$	-	0.36	-	V
		$I_F=3\text{A}$	$T_J=125^\circ\text{C}$	-	0.52	-	V
Reverse current	$I_R$	$V_R=80\text{V}$	$T_J=25^\circ\text{C}$	-	3	-	$\mu\text{A}$
		$V_R=100\text{V}$	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	-	-	20	$\mu\text{A}$ mA

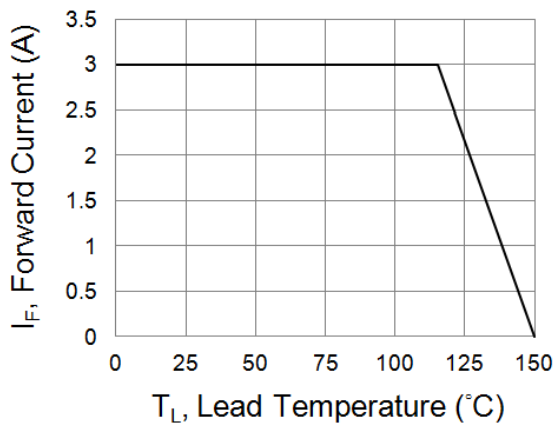


Fig.1 Forward Current Derating Curve

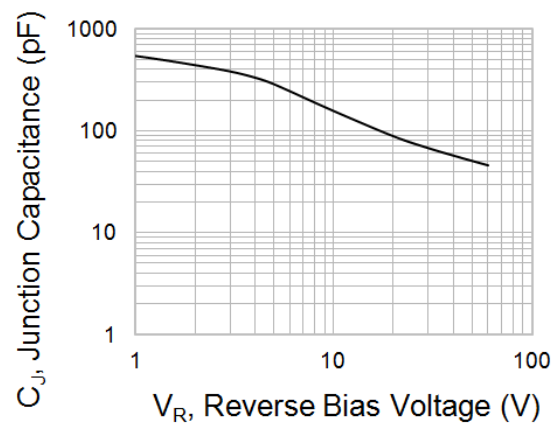


Fig.2 Typical Junction Capacitance

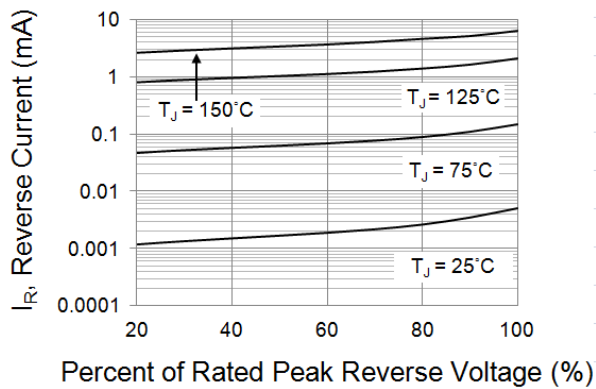


Fig.3 Typical Reverse Characteristics

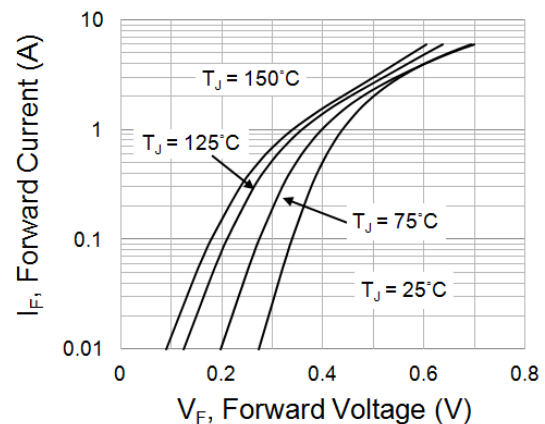


Fig.4 Typical Forward Characteristics



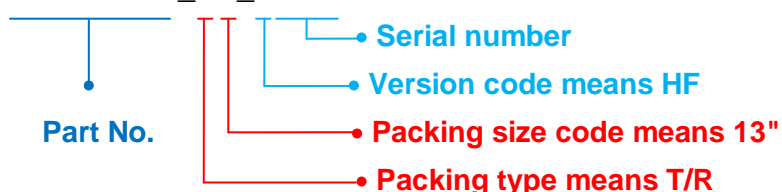
# SBT3100XSS

## Part No\_packing code\_Version

SBT3100XSS\_AY\_00001  
 SBT3100XSS\_AY\_10001  
 SBT3100XSS\_B0\_00001  
 SBT3100XSS\_B0\_10001  
 SBT3100XSS\_R2\_00001  
 SBT3100XSS\_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)	<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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