

SBT3100XSS

EXTREME LOW VF SCHOTTKY RECTIFIER

Voltage

100 V

Current

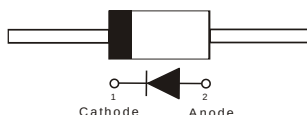
3 A

Features

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

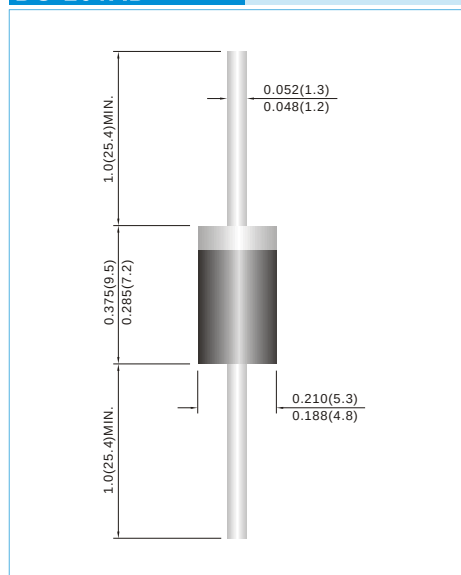
Mechanical Data

- 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



DO-201AD

Unit : inch(mm)



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	-	μA
		$V_R=100\text{V}$	$T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$	- -	- 3	20 -	μA mA

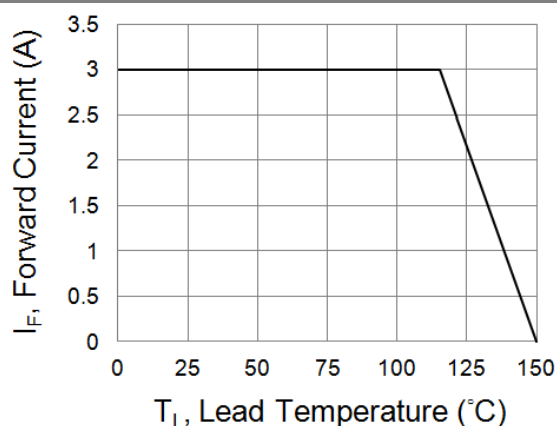


Fig.1 Forward Current Derating Curve

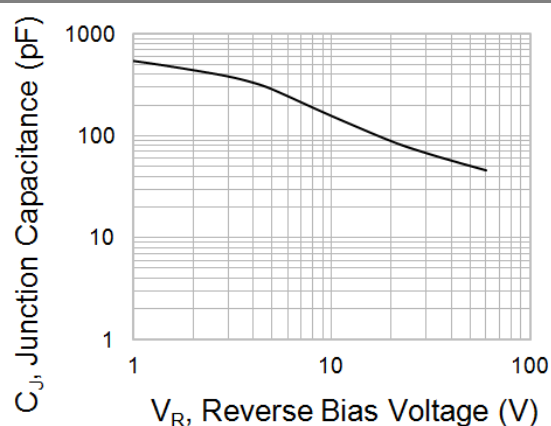


Fig.2 Typical Junction Capacitance

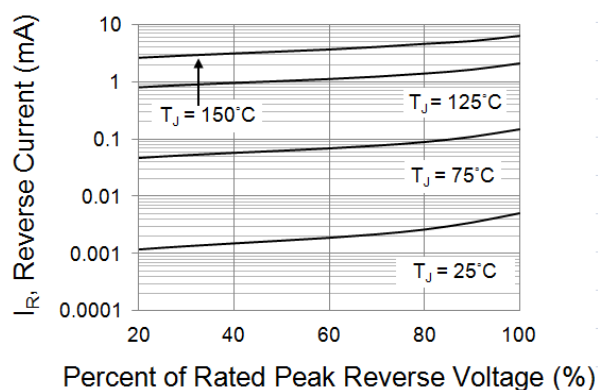


Fig.3 Typical Reverse Characteristics

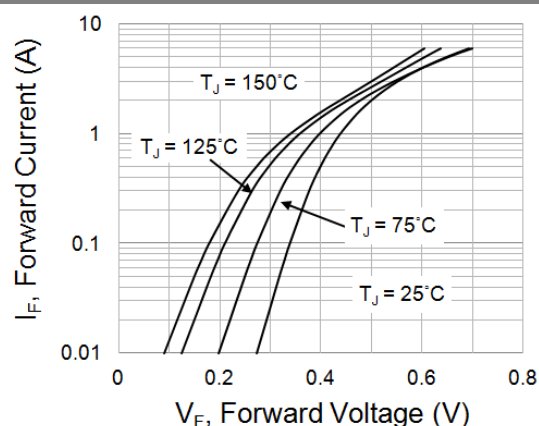


Fig.4 Typical Forward Characteristics



SBT3100XSS

Part No_packing code_Version

SBT3100XSS_AY_00001

SBT3100XSS_AY_10001

SBT3100XSS_B0_00001

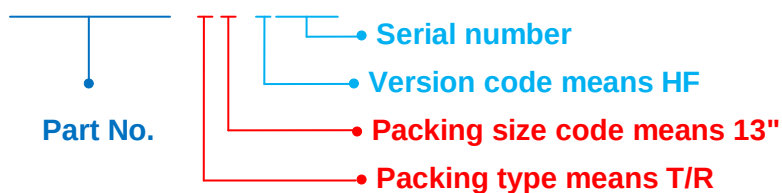
SBT3100XSS_B0_10001

SBT3100XSS_R2_00001

SBT3100XSS_R2_10001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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