



### EXTREME LOW VF SCHOTTKY RECTIFIER

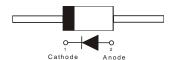
Voltage 100 V Current 3 A

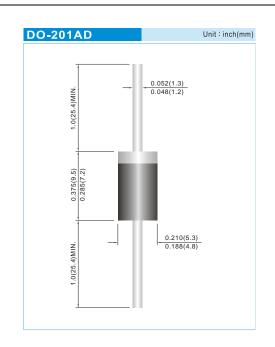
#### **Features**

- 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<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT	
Maximum repetitive peak reverse voltage		Vrrm	100	V
Maximum rms voltage	VRMS	70	V	
Maximum dc blocking voltage		VR	100	V
Maximum average forward rectified current		<b>I</b> F(AV)	3	Α
Peak forward surge current : 8.3ms single half sine- wave superimposed on rated load		IFSM	50	Α
Typical thermal resistance	(Note 1)	$R_{ heta JL}$	23	°C/W
Operating junction temperature range		TJ	-55 to +150	°C
Storage temperature range		Тѕтс	-55 to +150	°C

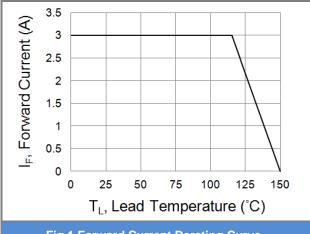
Note: 1. The testing condition of the thermal resistance (junction to lead) is based on 10mm lead length between two 10 x 10cm copper pad heatsinks.



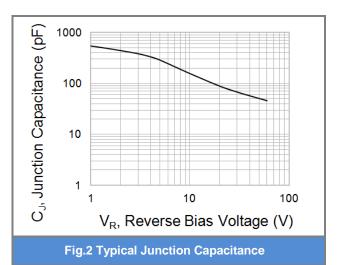


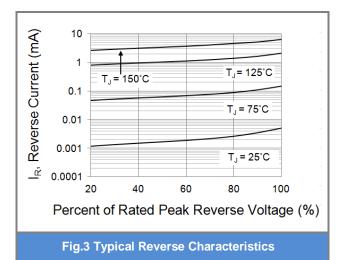
## Electrical Characteristics (T<sub>A</sub>=25 °C unless otherwise noted)

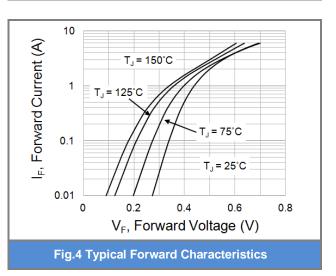
PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	I <sub>R</sub> =0.5mA	T <sub>J</sub> =25°C	100	ı	1	<b>V</b>
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A	T <sub>J</sub> =25°C	-	0.44	-	V
		I <sub>F</sub> =3A		-	0.55	0.6	
		I <sub>F</sub> =1A	TJ=125°C	-	0.36	-	V
		I <sub>F</sub> =3A		-	0.52	1	
Reverse current	I <sub>R</sub>	V <sub>R</sub> =80V	T <sub>J</sub> =25°C	1	3	1	μΑ
		V <sub>R</sub> =100V	T <sub>J</sub> =25°C	-	-	20	μА
			T <sub>J</sub> =125°C	-	3	-	mA



**Fig.1 Forward Current Derating Curve** 











### Part No\_packing code\_Version

SBT3100XSS\_AY\_00001

SBT3100XSS\_AY\_10001

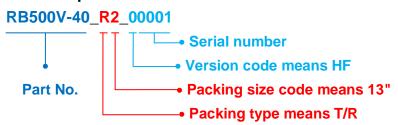
SBT3100XSS\_B0\_00001

SBT3100XSS\_B0\_10001

SBT3100XSS\_R2\_00001

SBT3100XSS\_R2\_10001

### For example:



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)	Α	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	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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