



# SB5100L

## LOW VF SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 100 Volt **CURRENT** 5 Ampere

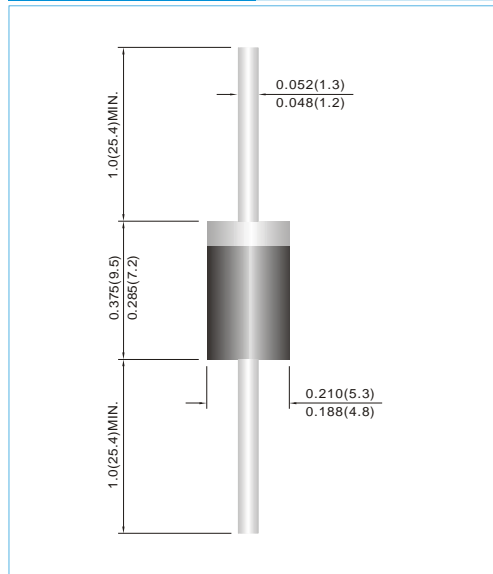
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications .
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

- Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Weight: 0.0403 ounces, 1.142 grams

**DO-201AD** Unit : inch(mm)



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

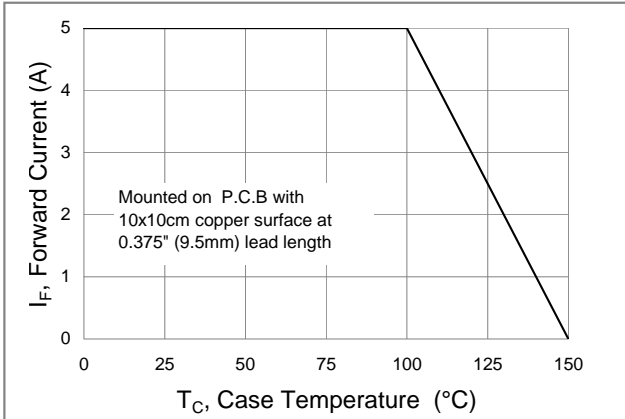
PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Maximum rms voltage	V <sub>RMS</sub>	70	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	250	A
Typical Thermal Resistance	R <sub>θJA</sub>	45	°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

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

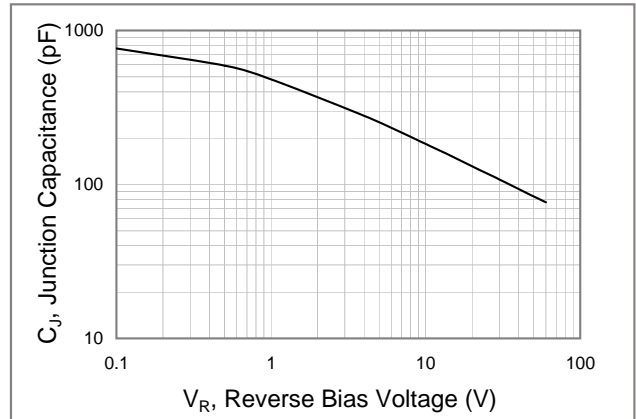
PARAMETER	SYMBOL	TEST CONDITIONS	TYP.	MAX.	UNIT
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =0.5mA T <sub>J</sub> =25°C	100	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A T <sub>J</sub> =25°C	0.44	-	V
		I <sub>F</sub> =3A T <sub>J</sub> =25°C	0.58	-	
		I <sub>F</sub> =5A T <sub>J</sub> =25°C	0.68	0.70	
		I <sub>F</sub> =1A T <sub>J</sub> =125°C	0.35	-	V
I <sub>F</sub> =3A T <sub>J</sub> =125°C	0.49	-			
I <sub>F</sub> =5A T <sub>J</sub> =125°C	0.56	0.6			
Reverse current	I <sub>R</sub>	V <sub>R</sub> =70V T <sub>J</sub> =25°C	10	-	μA
		V <sub>R</sub> =100V T <sub>J</sub> =25°C	-	50	μA
		V <sub>R</sub> =100V T <sub>J</sub> =100°C	-	10	mA
		V <sub>R</sub> =100V T <sub>J</sub> =125°C	-	50	mA



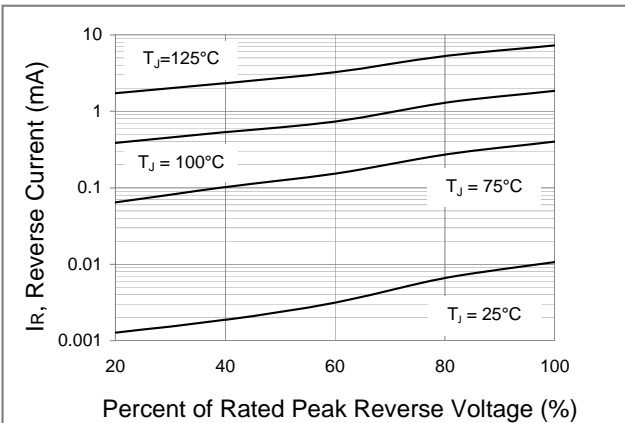
# SB5100L



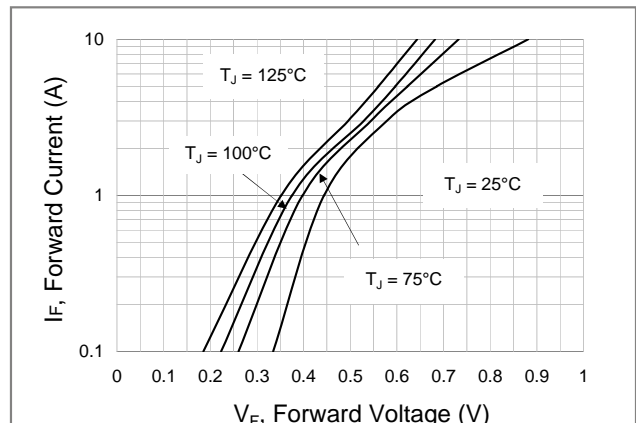
**Fig.1 Forward Current Derating Curve**



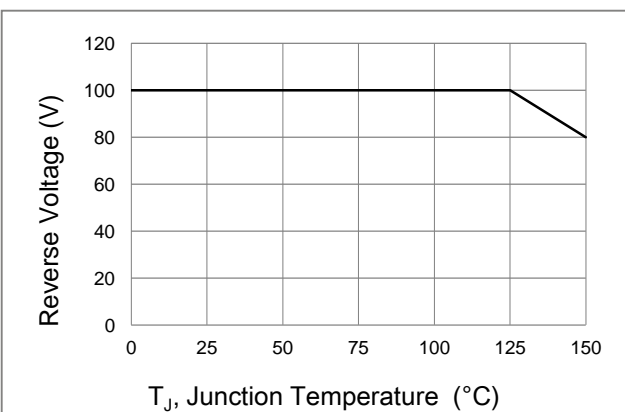
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**



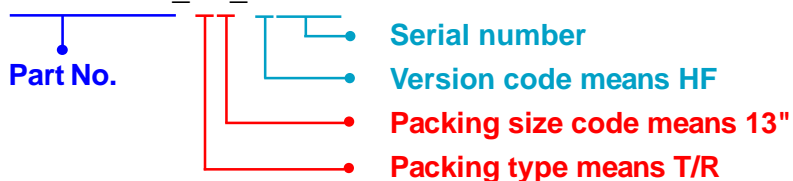
## SB5100L

### Part No\_packing code\_Version

SB5100L\_AY\_00001  
 SB5100L\_AY\_10001  
 SB5100L\_B0\_00001  
 SB5100L\_B0\_10001  
 SB5100L\_R2\_00001  
 SB5100L\_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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