

# SB220S~SB2100S

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 100 Volt **CURRENT** 2 Ampere

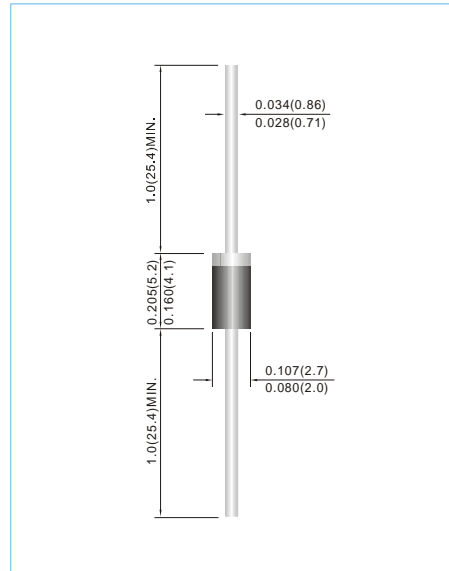
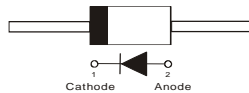
**DO-41** Unit : inch(mm)

### 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-41 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces, 0.3grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

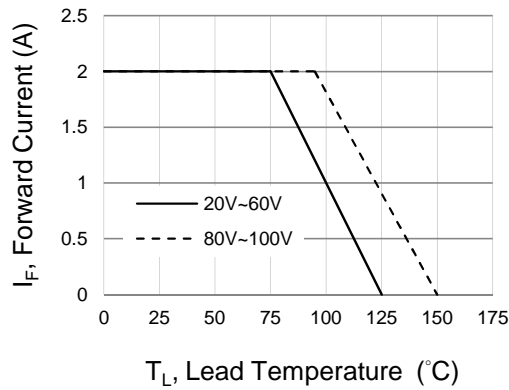
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

PARAMETER	SYMBOL	SB220S	SB230S	SB240S	SB250S	SB260S	SB280S	SB2100S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length	I <sub>F(AV)</sub>	2							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated	I <sub>FSM</sub>	50							A
Maximum Forward Voltage at 2A	V <sub>F</sub>	0.5			0.7		0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	0.5 20							mA
Maximum Thermal Resistance (Notes 2) (Notes 1) (Notes 1)	R <sub>θJA</sub> R <sub>θJL</sub> R <sub>θJC</sub>	80 48 20							°C / W
Operating Junction Temperature Range	T <sub>J</sub>	-50 to +125					-50 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-50 to +150							°C

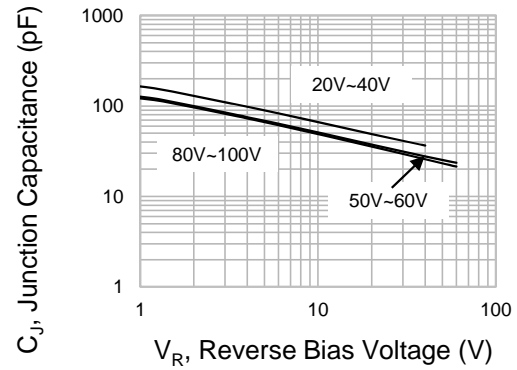
NOTES:1. The testing condition of the thermal resistance ( junction to case and junction to lead ) is based on 9.5 mm lead length between two 10cm x 10cm

2. Mounted on a single-sided copper, mini pad.

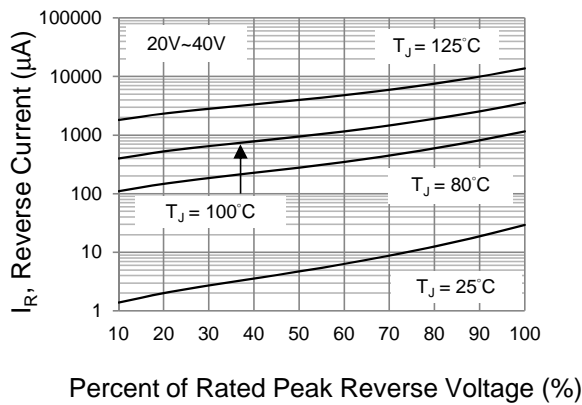
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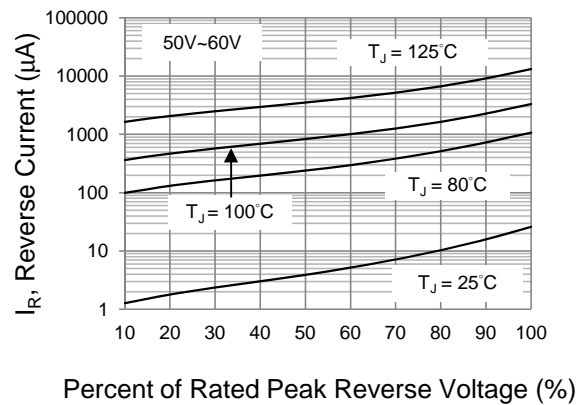
**Fig.1 Forward Current Derating Curve**



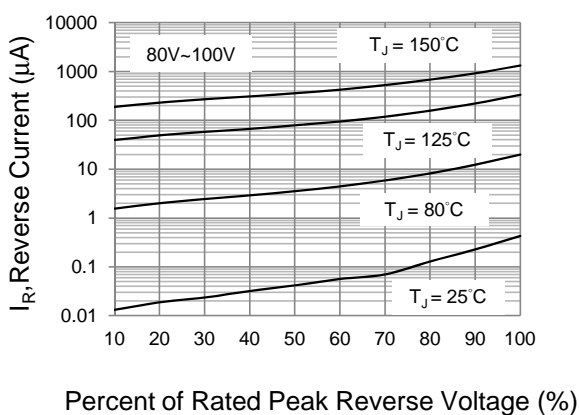
**Fig.2 Typical Junction Capacitance**



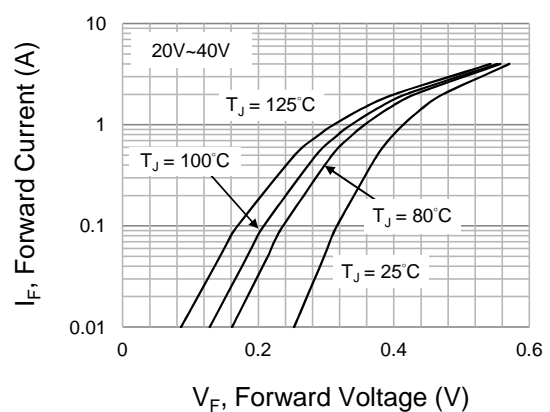
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**

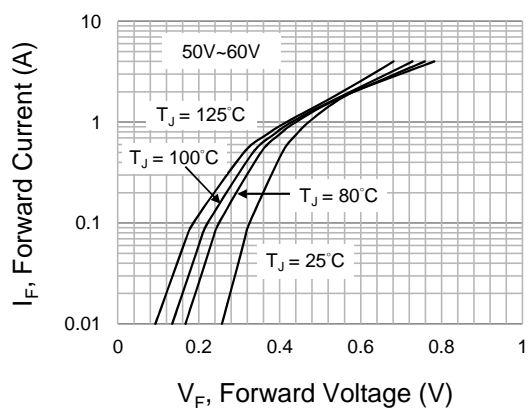


**Fig.5 Typical Reverse Characteristics**

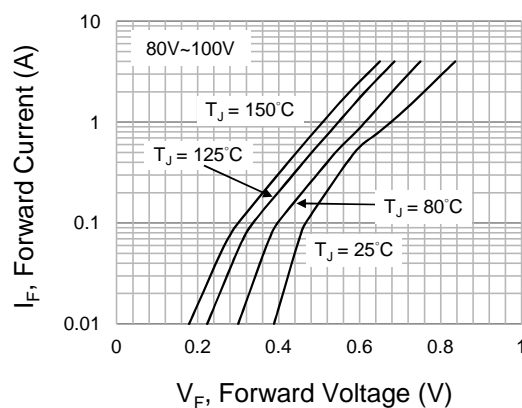


**Fig.6 Typical Forward Characteristics**

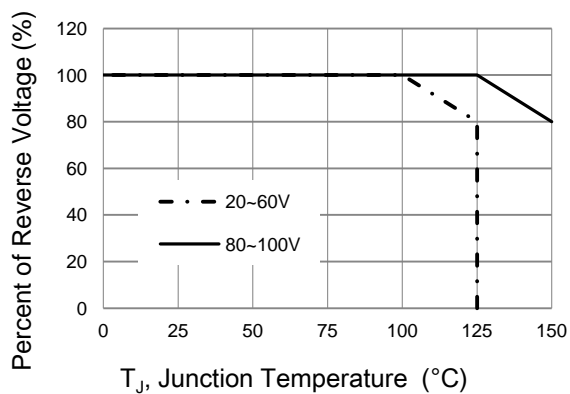
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**Fig.7 Typical Forward Characteristics**



**Fig.8 Typical Forward Characteristics**



**Fig.- Operating Temperature Derating Curve**

## SB220S~SB2100S

### Part No\_packing code\_Version

SB220S\_AY\_00001

SB220S\_AY\_10001

SB220S\_B0\_00001

SB220S\_B0\_10001

SB220S\_R2\_00001

SB220S\_R2\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<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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