



### **SCHOTTKY BARRIER RECTIFIERS**

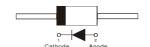
 VOLTAGE
 20 to 100 Volt
 CURRENT
 2 Ampere

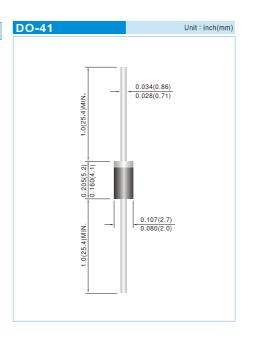
#### **FEATURES**

- 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-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.

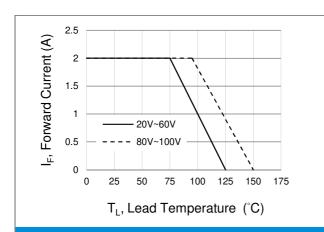
PARAMETER	SYMBOL	SB220S	SB230S	SB240S	SB250S	SB260S	SB280S	SB2100S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	٧
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	٧
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	٧
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length	I <sub>F(AV)</sub>	2				Α			
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated	I <sub>FSM</sub>	50						Α	
Maximum Forward Voltage at 2A		0.5 0.7 0.85			.85	٧			
Maximum DC Reverse Current at Rated DC Blocking $T_j$ =25°C Voltage $T_j$ =100°C	I <sub>R</sub>	0.5 20				mA			
(Notes 2) Maximuml Thermal Resistance (Notes 1) (Notes 1)	R <sub>eja</sub> R <sub>ejl</sub> R <sub>ejc</sub>	80 48 20			°C / W				
Operating Junction Temperature Range	T <sub>J</sub>	-50			50 to +125			-50 to +150	
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

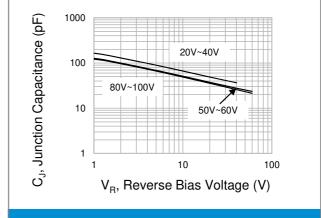
2. Mounted on a single-sided copper, mini pad.







**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

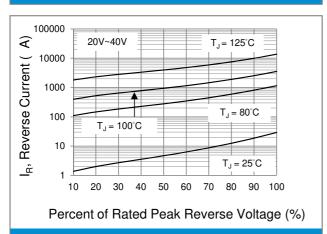


Fig.3 Typical Reverse Characteristics

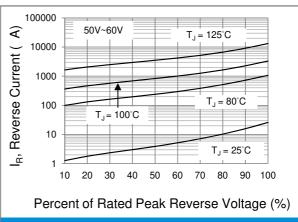
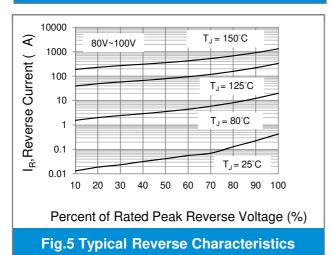
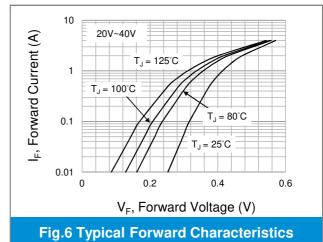


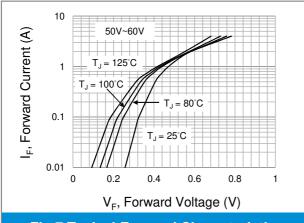
Fig.4 Typical Reverse Characteristics











**Fig.7 Typical Forward Characteristics** 

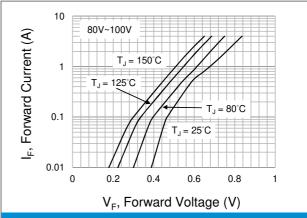
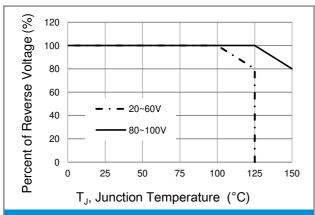


Fig.8 Typical Forward Characteristics



**Fig.9 Operating Temperature Derating Curve** 



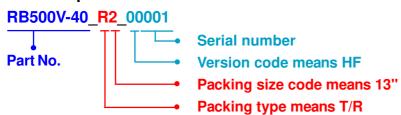


## Part No\_packing code\_Version

SB220S\_AY\_00001 SB220S\_AY\_10001 SB220S\_B0\_00001 SB220S\_B0\_10001

SB220S\_R2\_00001 SB220S\_R2\_10001

### For example:



Packing Code XX					Version Code XXXXX				
Packing type	1st 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)	В	13"	2						
Tube Packing (T/P)	Т	26mm	X						
Tape and Reel (Right Oriented) (TRR)	S	52mm	Υ						
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U						
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D						





### **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties
  of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation.
   Customers are responsible in comprehending the suitable use in particular applications.
   Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.