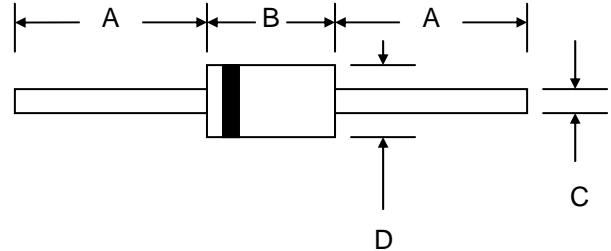


### Features

- Schottky Barrier Chip
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 50A Peak
- Low Power Loss, High Efficiency
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

DO-41		
Dim	Min	Max
A	25.4	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	SB2150S	SB2200S	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	150	200	V
Working Peak Reverse Voltage	$V_{RWM}$			
DC Blocking Voltage	$V_R$			
RMS Reverse Voltage	$V_{R(RMS)}$	105	140	V
Average Rectified Output Current (Note 1)	$I_O$	2.0		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50		A
Forward Voltage @ $I_F = 2.0A$	$V_{FM}$	0.9		V
Peak Reverse Current @ $T_J = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$	$I_{RM}$	0.2	5.0	mA
Typical Junction Capacitance (Note 2)	$C_J$	55		pF
Thermal Resistance, Junction to Ambient (Note 3)	$R_{JA}$	50		$^\circ\text{C/W}$
Thermal Resistance, Junction to Lead (Note 3)	$R_{JL}$	15		
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150		$^\circ\text{C}$

- Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Vertical PCB mounting with 12.7mm lead length on 63.5 x 63.5mm copper pad.

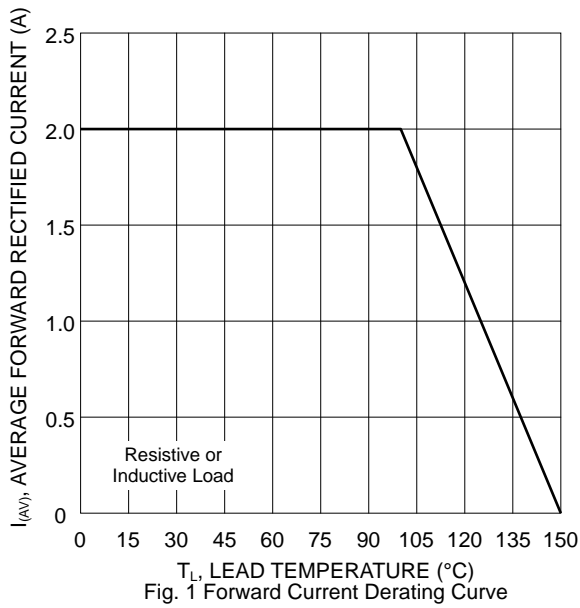


Fig. 1 Forward Current Derating Curve

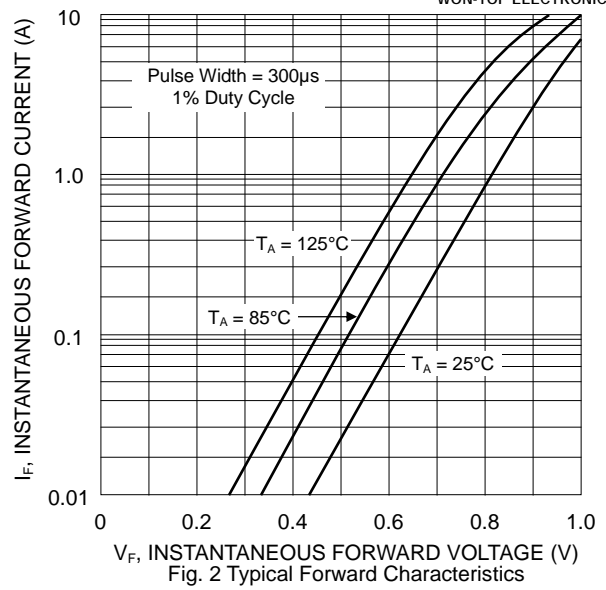


Fig. 2 Typical Forward Characteristics

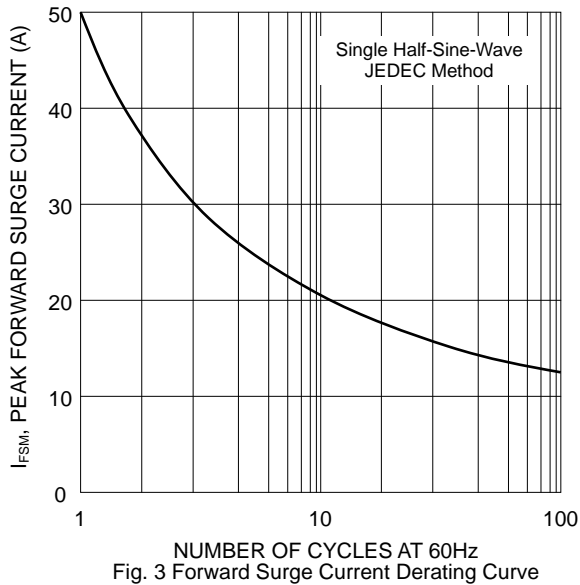


Fig. 3 Forward Surge Current Derating Curve

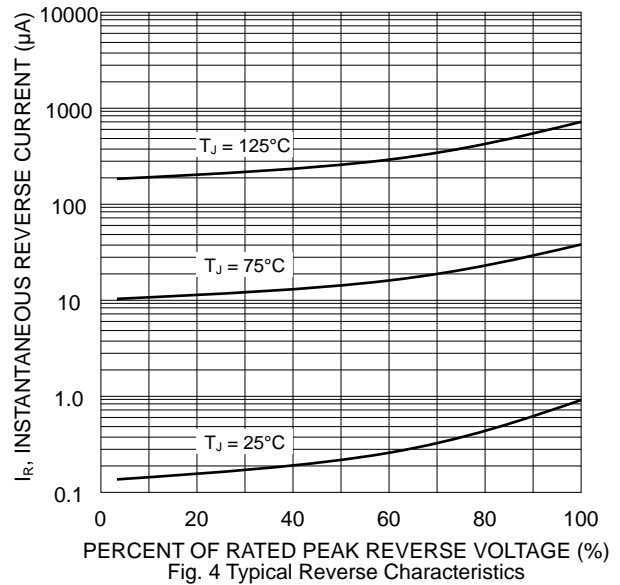


Fig. 4 Typical Reverse Characteristics

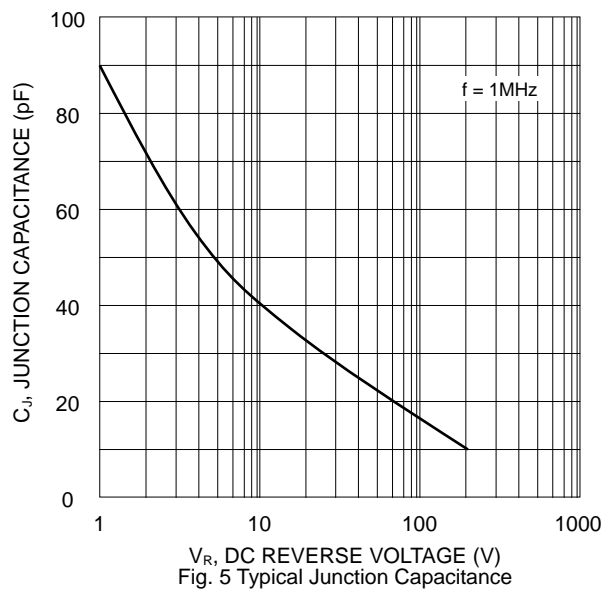
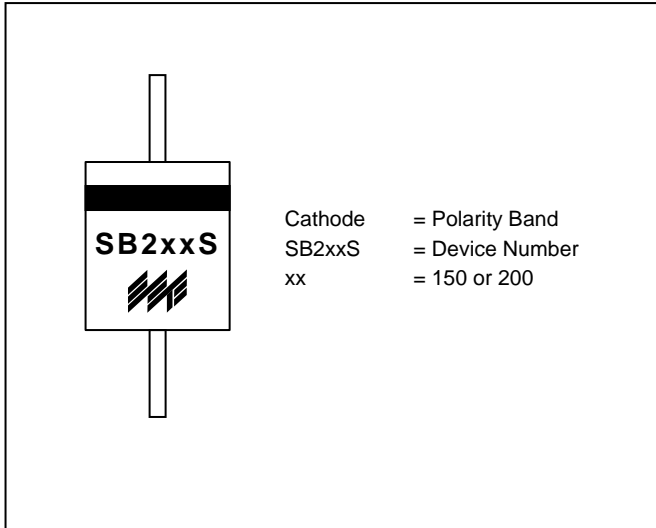
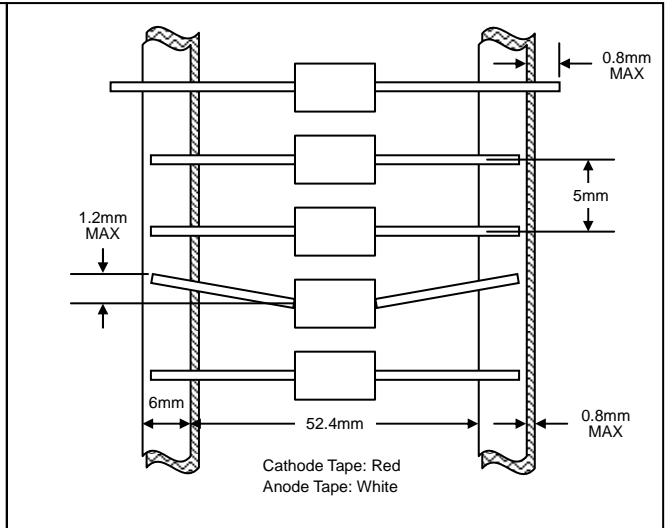


Fig. 5 Typical Junction Capacitance

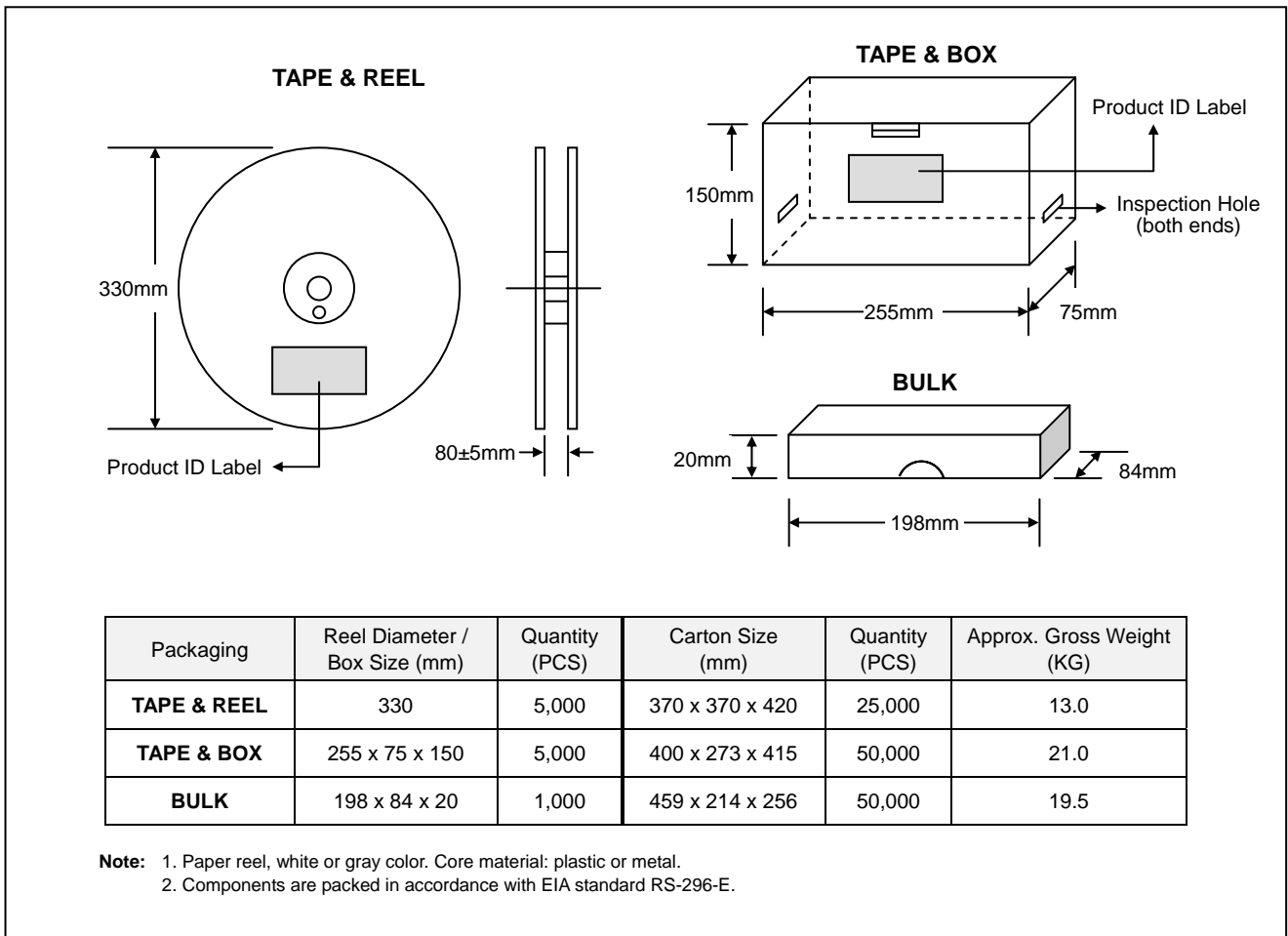
## MARKING INFORMATION



## TAPING SPECIFICATIONS




## PACKAGING INFORMATION



## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB2xxS-T3	DO-41	5000/Tape & Reel
<b>SB2xxS-TB</b>	DO-41	5000/Tape & Box
SB2xxS	DO-41	1000 Units/Box

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SB2150S-TB-LF.**

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