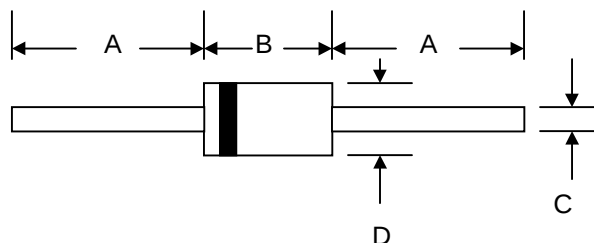


1.0A SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 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°C unless otherwise specified

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

Characteristic	Symbol	SB120	SB130	SB140	SB150	SB160	SB180	SB1100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	20	30	40	50	60	80	100	V
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	56	70	V
Average Rectified Output Current @T _L = 100°C (Note 1)	I _O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	40							A
Forward Voltage @I _F = 1.0A	V _{FM}	0.50			0.70		0.85		V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	0.5 10							mA
Typical Junction Capacitance (Note 2)	C _j	110			80				pF
Typical Thermal Resistance (Note 1)	R _θ JL R _θ JA	15 50							°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150							°C

Note: 1. Valid provided that leads are kept 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.

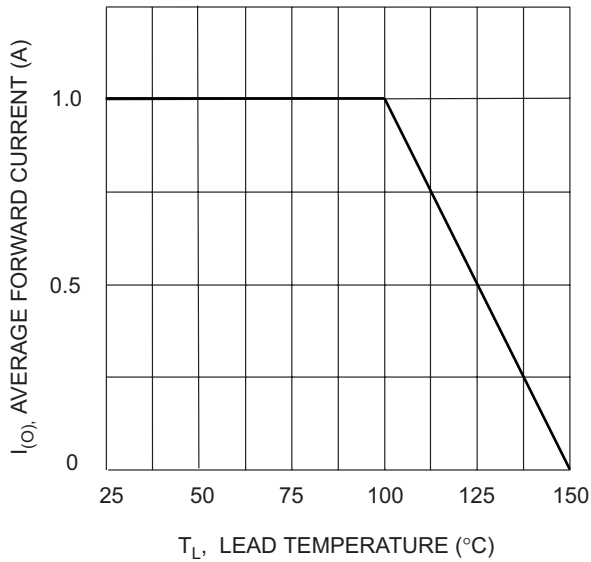


Fig. 1 Forward Current Derating Curve

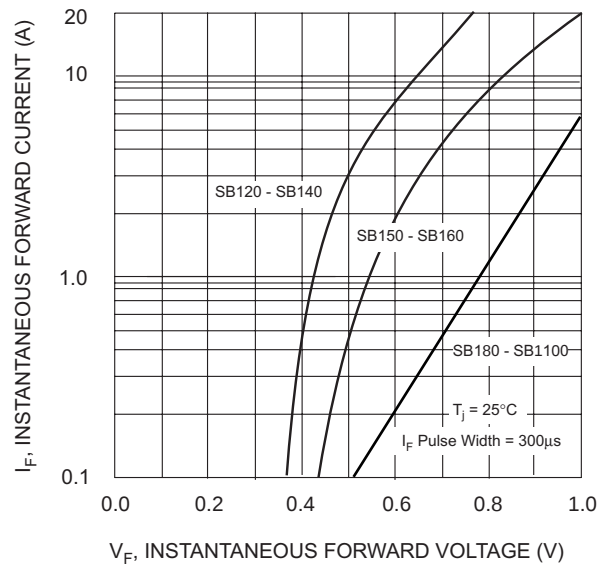


Fig. 2 Typical Forward Characteristics

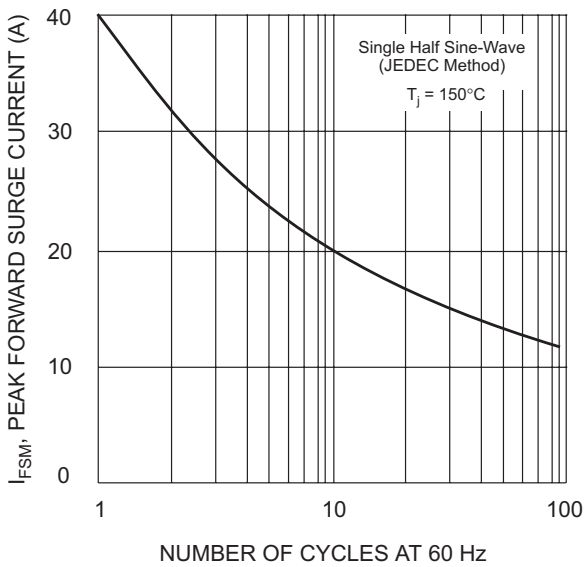


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

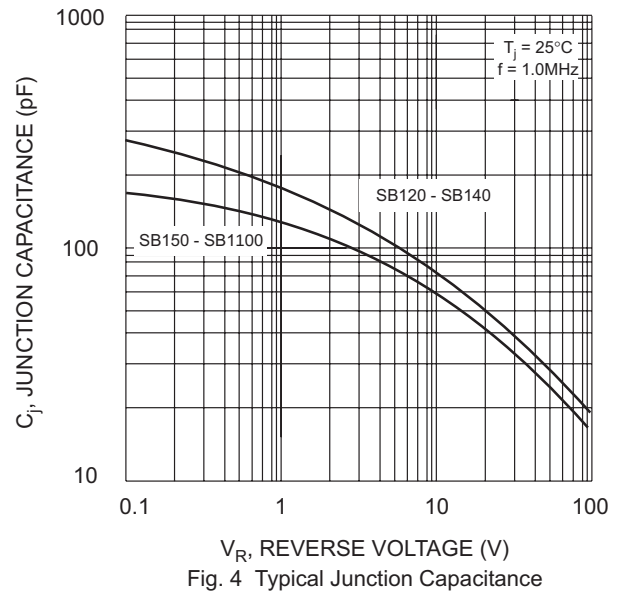


Fig. 4 Typical Junction Capacitance

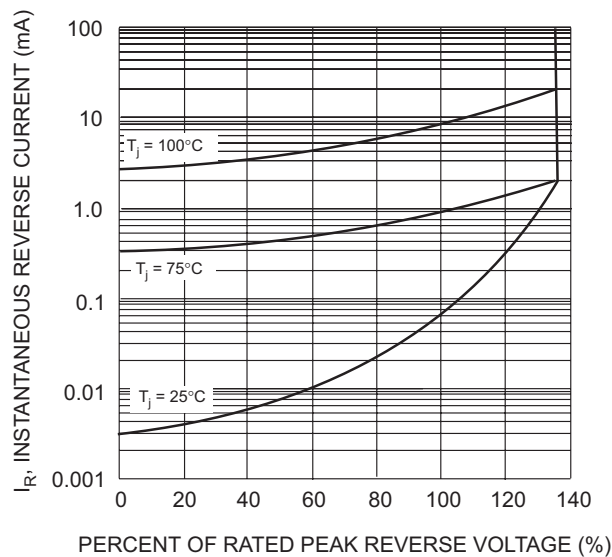
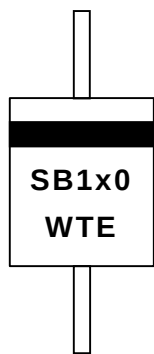


Fig. 5 Typical Reverse Characteristics

MARKING INFORMATION



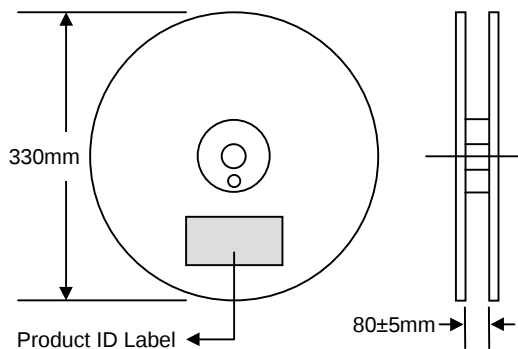
Cathode = Polarity Band
 SB1x0 = Device Number
 x = 2, 3, 4, 5, 6, 8 or 10
 WTE = Manufacturer's Logo

TAPING SPECIFICATIONS



PACKAGING INFORMATION

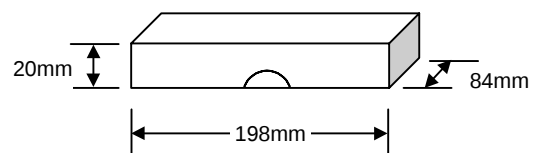
TAPE & REEL



TAPE & BOX



BULK



Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
TAPE & REEL	330	5,000	370 x 370 x 420	25,000	13.0
TAPE & BOX	255 x 75 x 150	5,000	400 x 273 x 415	50,000	21.0
BULK	198 x 84 x 20	1,000	459 x 214 x 256	50,000	19.5

Note: 1. Paper reel, white or gray color. Core material: plastic or metal.
 2. Components are packed in accordance with EIA standard RS-296-E.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB120-T3	DO-41	5000/Tape & Reel
SB120-TB	DO-41	5000/Tape & Box
SB120	DO-41	1000 Units/Box
SB130-T3	DO-41	5000/Tape & Reel
SB130-TB	DO-41	5000/Tape & Box
SB130	DO-41	1000 Units/Box
SB140-T3	DO-41	5000/Tape & Reel
SB140-TB	DO-41	5000/Tape & Box
SB140	DO-41	1000 Units/Box
SB150-T3	DO-41	5000/Tape & Reel
SB150-TB	DO-41	5000/Tape & Box
SB150	DO-41	1000 Units/Box
SB160-T3	DO-41	5000/Tape & Reel
SB160-TB	DO-41	5000/Tape & Box
SB160	DO-41	1000 Units/Box
SB180-T3	DO-41	5000/Tape & Reel
SB180-TB	DO-41	5000/Tape & Box
SB180	DO-41	1000 Units/Box
SB1100-T3	DO-41	5000/Tape & Reel
SB1100-TB	DO-41	5000/Tape & Box
SB1100	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, SB120-TB-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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We power your everyday.