

# SB120 THRU SB1100

## SCHOTTKY BARRIER RECTIFIERS

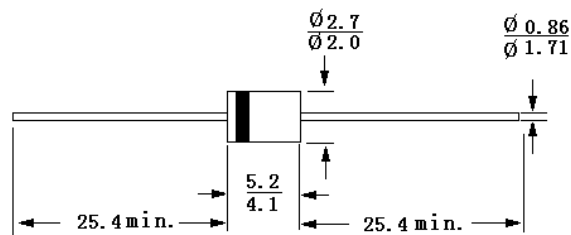
Reverse Voltage – 20 to 100 Volts

Forward Current – 1.0 Amperes

DO-41

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- 1.0 ampere operation at  $T_A = 75^\circ\text{C}$  with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/226
- For use in low voltage, high frequency inverters free wheeling ,and polarity protection applications



Dimensions in mm

### Mechanical Data

- Case: Molded plastic, DO-41
- Terminals: Axial leads, solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode
- Mounting Position: Any

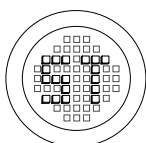
### Absolute Maximum Ratings and Characteristics

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

	Symbols	SB 120	SB 130	SB 140	SB 150	SB 160	SB 180	SB 1100	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	25	35	42	56	80	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current 0.375" lead length at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1							A
Peak forward surge current $I_{FM}(\text{surge})$ : 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum forward voltage at 1.0A	$V_F$	0.55		0.70		0.85		V	
Maximum full load reverse current, full cycle average at $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	30							mA
Maximum reverse current $T_A = 25^\circ\text{C}$ at rated reverse voltage $T_A = 100^\circ\text{C}$	$I_R$	0.5 10							mA
Typical junction capacitance (Note 1)	$C_J$	110							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	80							$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_S$	-50 to +125							$^\circ\text{C}$

Notes: (1) Measured at 1MHz and applied reverse voltage of 4 VDC.

(2) Thermal resistance junction to ambient.



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