SB120 THRU SB1100

SCHOTTKY BARRIER RECTIFIER Reverse Voltage – 20 to 100 Volts

Forward Current – 1.0 Amperes

Features

- High current capability
- · High surge current capability
- · Low forward voltage drop
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling ,and polarity protection applications

Mechanical Data

• Case: Molded plastic, DO-41

• Epoxy: UL 94V-0 rate flame retardant

• Lead: Axial leads, solderable per MIL-STD-202, method 208

• Polarity: Color band denotes cathode end

• Mounting Position: Any

1.0 (25.4) MIN. .205 (5.2) .166 (4.2) 1.0 (25.4) MIN. .107 (2.7) .080 (2.0) DIA.

Dimensions in inches and (millimeter

Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

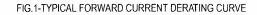
Parameter	Symbols	SB 120	SB 130	SB 140	SB 150	SB 160	SB 180	SB 1100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	80	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	I _(AV)	1							А
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	40						Α	
Maximum Forward Voltage at 1 A and 25 °C	V _F	0.55 0.7 0.85				85	V		
Maximum Reverse Current $T_A = 25 ^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_A = 100 ^{\circ}\text{C}$	I _R	0.5 10						mA	
Typical Junction Capacitance 1)	СЈ	110							pF
Typical Thermal Resistance 2)	$R_{\theta JA}$	50							°C/W
Operating Junction Temperature Range	TJ	-55 to +125 -55 to +150							°C
Operating and Storage Temperature Range	T _J ,T _S	-55 to +150							°C

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





²⁾ Thermal resistance from junction to ambient 0.375" (9.5 mm) lead length P.C.B mounted with 0.22 X 0.22" (5.5 X 5.5 mm) copper pads



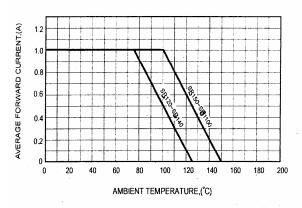


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

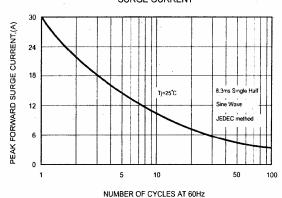


FIG.4-TYPICAL JUNCTION CAPACITANCE

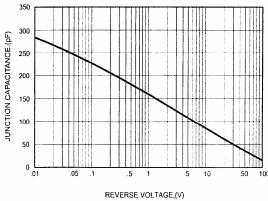


FIG.2-TYPICAL FORWARD

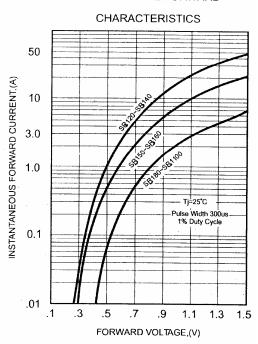
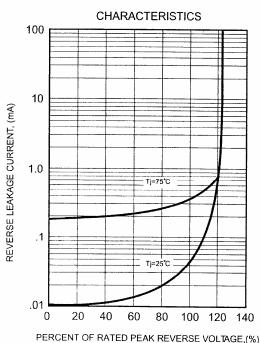


FIG.5 - TYPICAL REVERSE





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