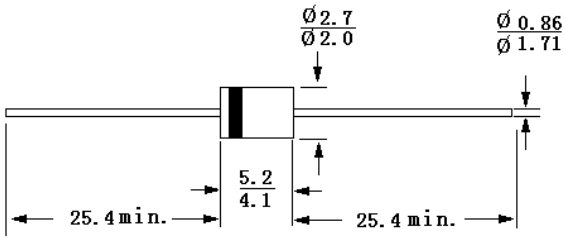
SB120 THRU SB1100

SCHOTTKY BARRIER RECTIFIERS
Reverse Voltage – 20 to 100 Volts
Forward Current – 1.0 Amperes

DO-41



Dimensions in mm

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame retardant epoxy molding compound
- 1.0 ampere operation at T_A = 75°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

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°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 °C	$I_{(AV)}$	1							A
Peak forward surge current I_{FM}(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 °C	$I_{R(AV)}$	30							mA
Maximum reverse current T_A = 25 °C at rated reverse voltage T_A = 100°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							°C/W
Operating and storage temperature range	T_J ,T_S	-50 to +125							°C

Notes: (1) Measured at 1MH$_Z$ and applied reverse voltage of 4 VDC.

(2) Thermal resistance junction to ambient.