



DATA SHEET

SB120~SB1100

1 AMPERE SCHOTTKY BARRIER RECTIFIERS
VOLTAGE 50 to 100 Volts CURRENT - 1.0 Ampere

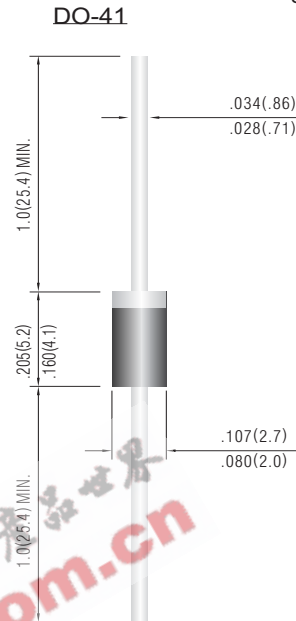
Unit: inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- 1 ampere operation at $T_A=75^{\circ}\text{C}$ with no thermal runaway.
- 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: DO-41 Molded plastic
Terminals: Axial leads, solderable per MIL-STD-202,Method 208
Polarity: Color band denotes cathode
Mounting Position: Any
Weight: 0.012 ounces, 0.34grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

	SB120	SB130	SB140	SB150	SB160	SB180	SB1100	UNIT
Peak Reverse Voltage, Repetitive ; V_{RM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
DC Reverse Voltage; V_R	20	30	40	50	60	80	100	V
Maximum Forward Voltage at 1.0A	0.50		0.70		0.85			V
Maximum Average Forward Rectified Current .375" Lead Length at $T_A=75^{\circ}\text{C}$	1.0							A
Peak Forward Surge Current, IFM (surge):8.3ms single half sine-wave superimposed on rated load(JEDEC method)	30.0							A
Maximum Full Load Reverse Current, Full Cycle Average at $T_A=75^{\circ}\text{C}$	30.0							mA
Maximum DC Reverse Current at $T_A=25^{\circ}\text{C}$ At Rated DC Blocking Voltage $T_A=100^{\circ}\text{C}$	0.5 10.0							mA mA
Typical Thermal Resistance $R_{\theta JA}$ (Note 1)	110							pF
Typical Junction capacitance (Note 2)	80							$^{\circ}\text{C} / \text{W}$
Operating Temperature Range T_J	-50 to +125							$^{\circ}\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient .



RATING AND CHARACTERISTIC CURVES

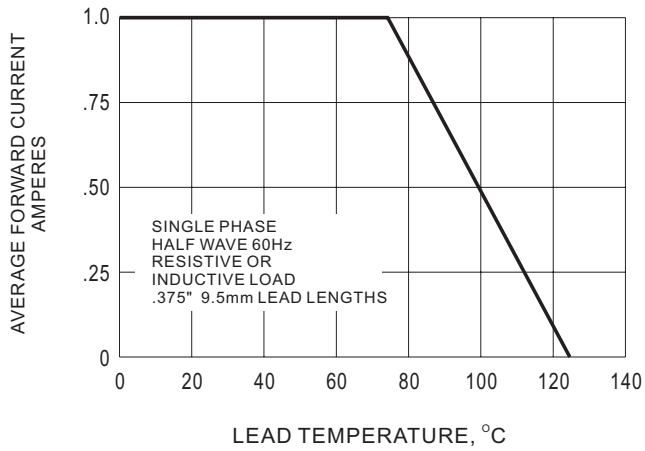


Fig.1-FORWARD CURRENT DERATING CURVE

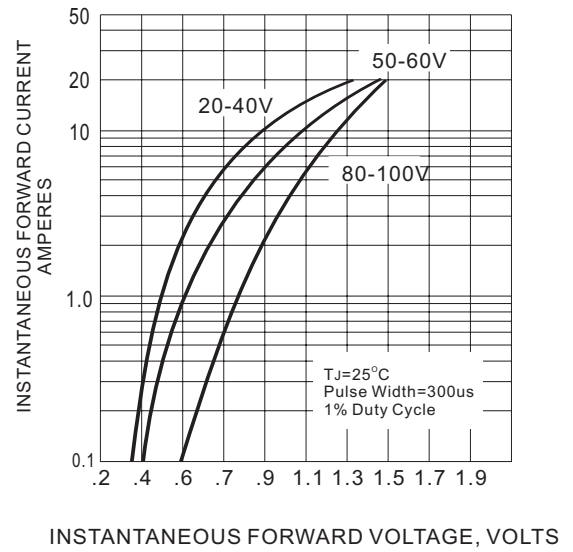


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

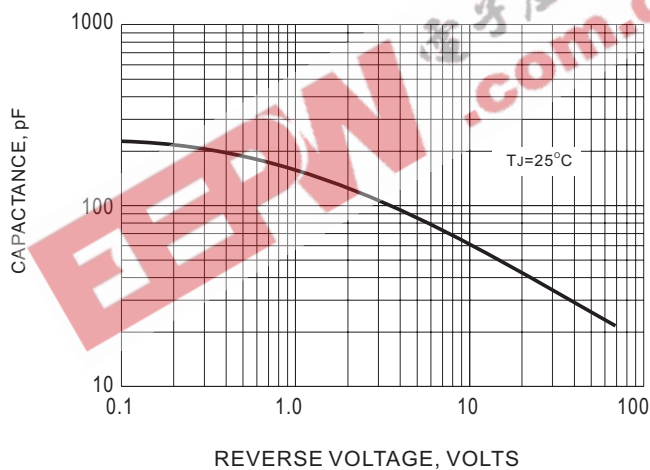


Fig.3-TYPICAL JUNCTION CAPACITANCE

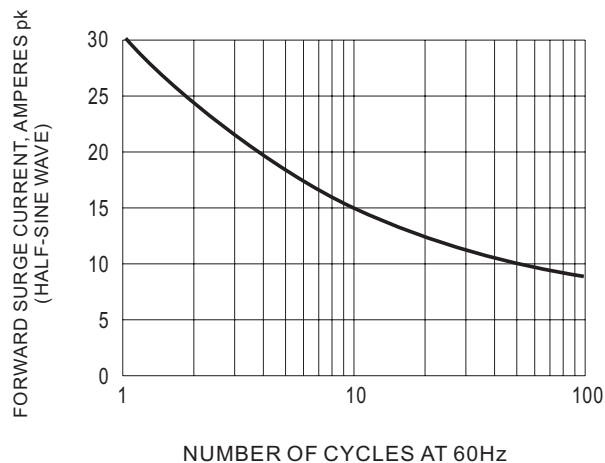


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT