SB170S thru SB1B0S

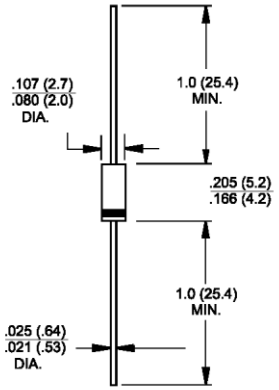
1.0 Amp. Schottky Barrier Rectifiers
Voltage Range 70 to 100 Volts Forward Current 1.0 Ampere

Features

- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications



A-405



Dimensions in inches and (millimeters)

Mechanical Data

- Case : A-405 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.008 ounce, 0.22 gram
- Mounting position : Any

Maximum Ratings and Electrical 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	SB170S	SB180S	SB190S	SB1B0S	Units
Maximum repetitive peak reverse voltage	V_{RRM}	70	80	90	100	Volts
Maximum RMS voltage	V_{RMS}	49	56	63	70	Volts
Maximum DC blocking voltage	V_{DC}	70	80	90	100	Volts
Maximum average forward rectified current .375" (9.5mm) lead lengths @T_L=100°C	$I_{(AV)}$	1.0				Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0				Amps
Maximum forward voltage at I_F=1.0A,T_J=25°C I_F=1.0A,T_J=100°C	V_F	0.79 0.69				Volts
Maximum DC reverse current @T_J=25°C at rated DC blocking voltage @T_J=100°C	I_R	0.5 5.0				mA
Typical junction capacitance (Note 1)	C_J	30				pF
Typical thermal resistance (Note 2)	$R_{\theta JL}$	35				°C/W
Operating junction temperature range	T_J	-55 to +125				°C
Storage temperature range	T_{STG}	-55 to +150				°C

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance Junction to Lead.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

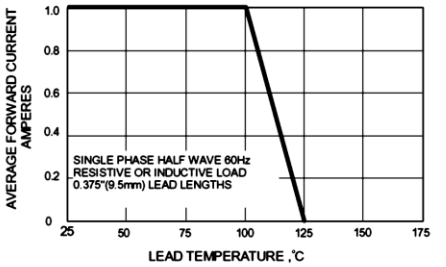


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

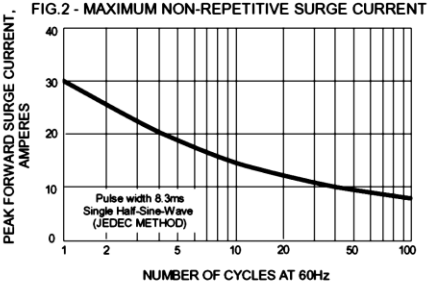


FIG.3 - TYPICAL JUNCTION CAPACITANCE

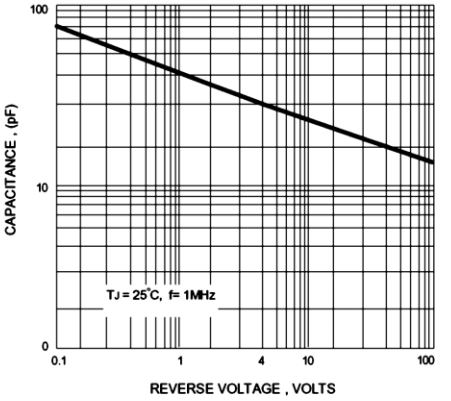


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

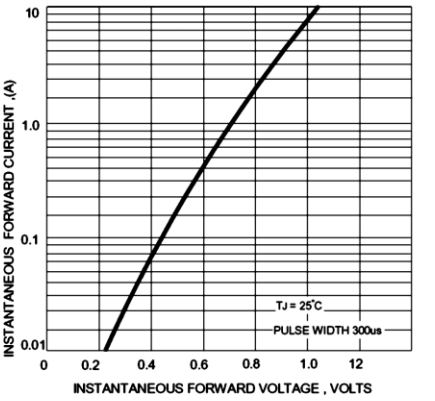


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

