LITE-ON SEMICONDUCTOR

SB170 thru SB1100

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **70** to **100** Volts
FORWARD CURRENT - **1.0** Ampere

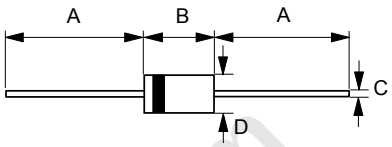
FEATURES

- Metal-Semiconductor junction with guard ring
- 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

MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

DO-41



Dim.	DO-41 Min.	DO-41 Max.
A	25.4	-
B	4.10	5.20
C	0.71 ∅	0.86 ∅
D	2.00 ∅	2.70 ∅
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SB170	SB180	SB190	SB1100	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	70	80	90	100	V
Maximum RMS Voltage	V_{RMS}	49	56	63	70	V
Maximum DC Blocking Voltage	V_{DC}	70	80	90	100	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Lengths @T_L=100℃	$I_{(AV)}$	1.0				A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	40				A
Maximum Forward Voltage at I_F=1.0A,T_J=25℃ I_F=1.0A,T_J=100℃	V_F	0.79 0.69				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J=25℃ @T_J=100℃	I_R	0.2 2.0				mA
Typical Junction Capacitance (Note 1)	C_J	30				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	50				℃/W
Operating Temperature Range	T_J	-55 to +150				℃
Storage Temperature Range	T_{STG}	-55 to +150				℃

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

FIG.1 - FORWARD CURRENT DERATING CURVE

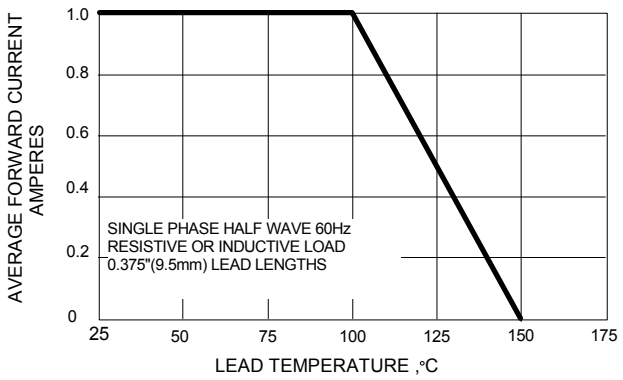


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

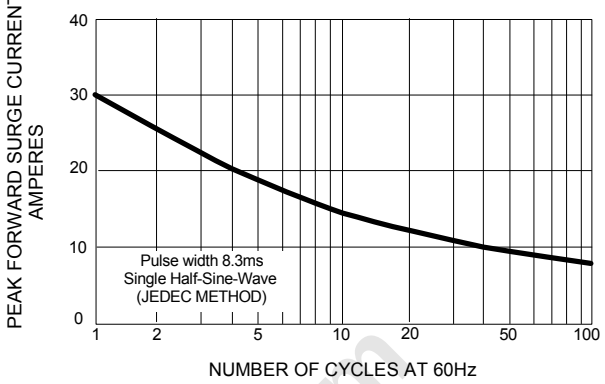


FIG.3 - TYPICAL JUNCTION CAPACITANCE

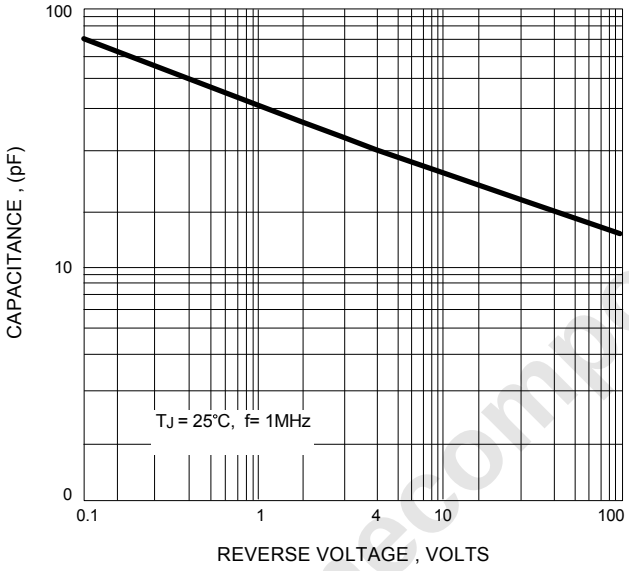


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

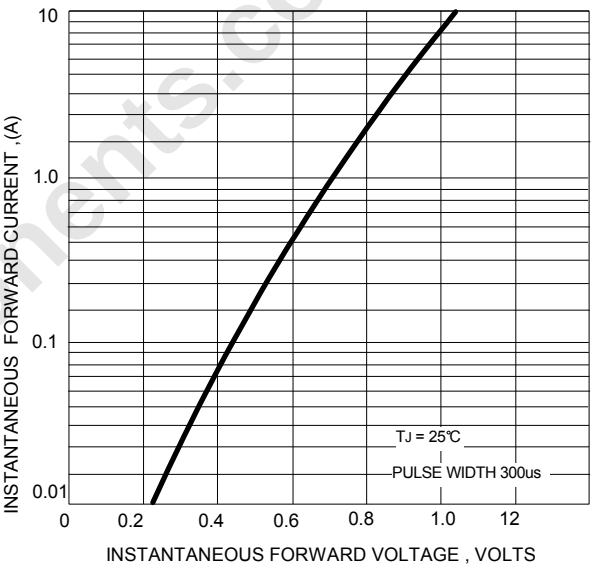
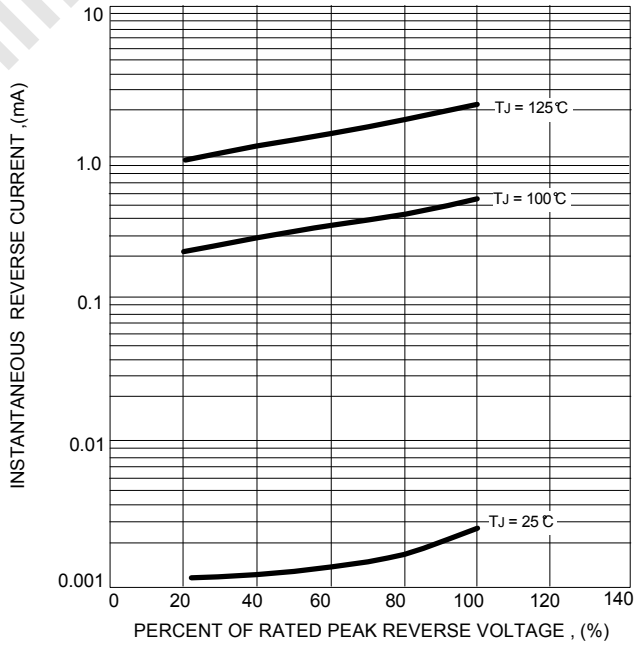


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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