LITE-ON SEMICONDUCTOR

B170LB thru B1100LB

SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIERS

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

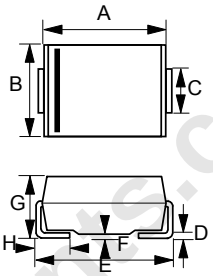
FEATURES

- For surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.003 ounces, 0.093 grams

SMB



SMB		
DIM.	MIN.	MAX.
A	4.06	4.57
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.21	5.59
F	0.05	0.20
G	2.01	2.50
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	B170LB	B180LB	B190LB	B1100LB	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 @TL =120℃ @TL =100℃	$I_{(AV)}$	1.0 2.0				A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	50				A
Maximum forward Voltage at 1.0A DC @TJ =25℃	V_F	0.75				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ =25℃ @TJ =100℃	I_R	0.5 15.0				mA
Typical Junction Capacitance (Note 1)	C_J	80				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	15				℃/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

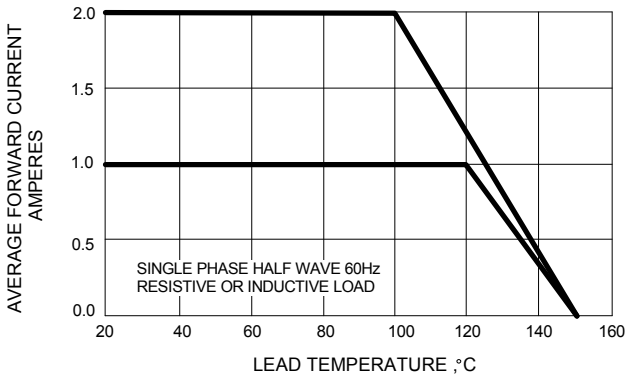


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

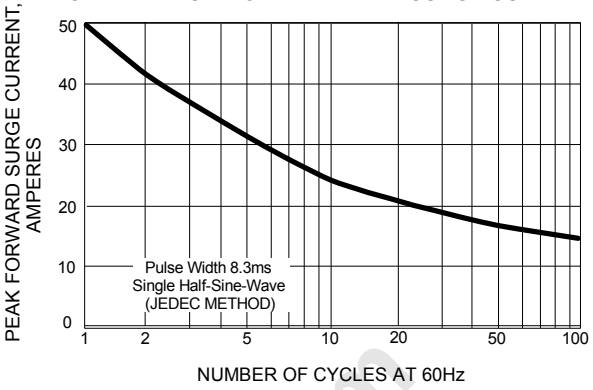


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

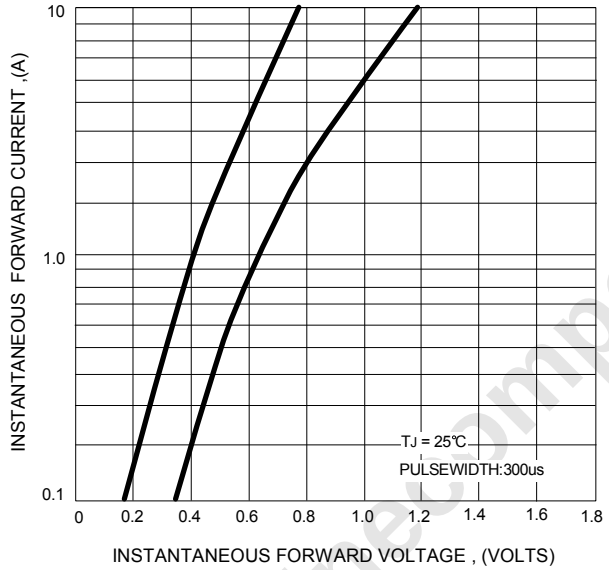


FIG.4 - TYPICAL JUNCTION CAPACITANCE

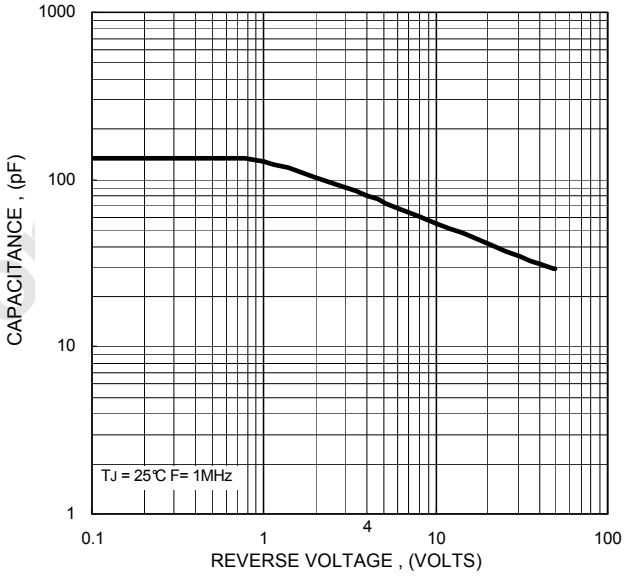
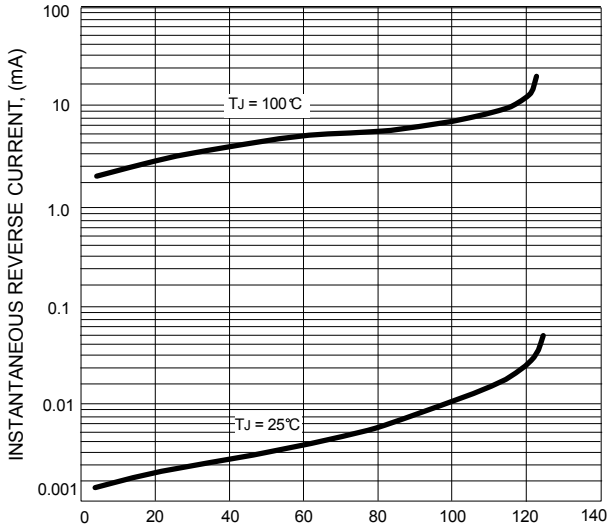


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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