LITE-ON SEMICONDUCTOR

B170 thru B1100

SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIERS

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

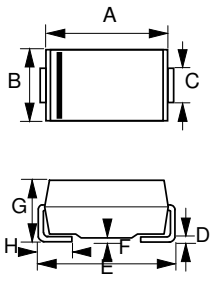
FEATURES

- For surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Very Low forward voltage drop
- High current
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.066 grams (Approximate)

SMA



SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	2.01	2.40
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	B170	B180	B190	B1100	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 =100°C	$I_{(AV)}$	1.0				A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	30				A
Maximum forward Voltage at 1.0A DC @TJ =25°C	V_F	0.79				V
@TJ =100°C		0.69				
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ =25°C	I_R	0.02				mA
@TJ =100°C		5.0				
Typical Junction Capacitance (Note 1)	C_J	30				pF
Typical Thermal Resistance (Note 2, 3)	$R_{\theta JL}$	20				°C/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.
3. Device mounted on glass-epoxy substrate with 1oz/ft²_7x5 mm copper pad.

REV. 10, Jan-2018, KSHA02

RATING AND CHARACTERISTIC CURVES
B170 thru B1100

FIG.1 - FORWARD CURRENT DERATING CURVE

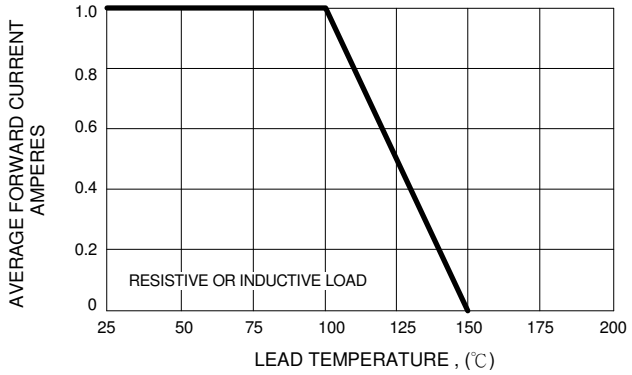


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

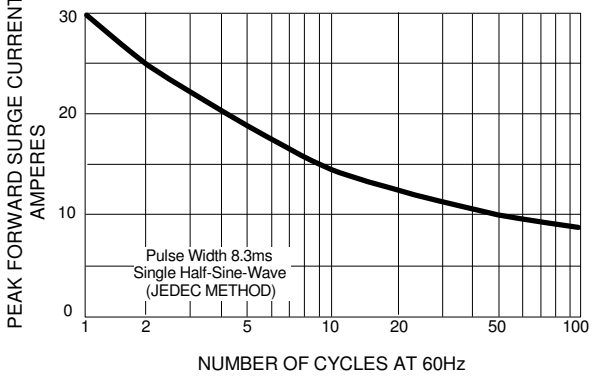


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

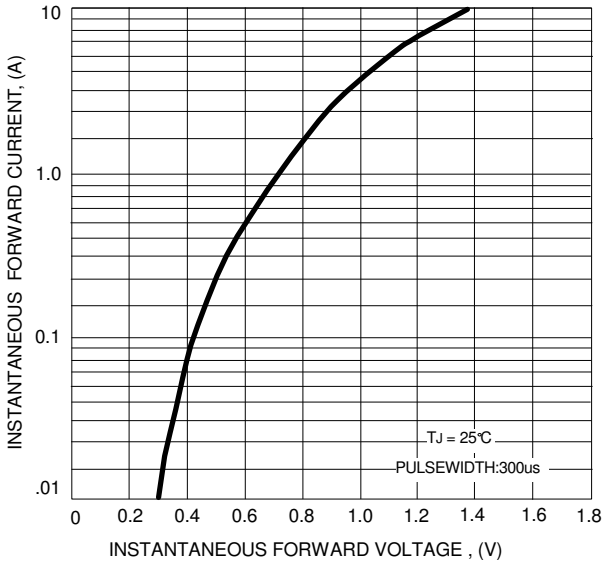


FIG.4 - TYPICAL JUNCTION CAPACITANCE

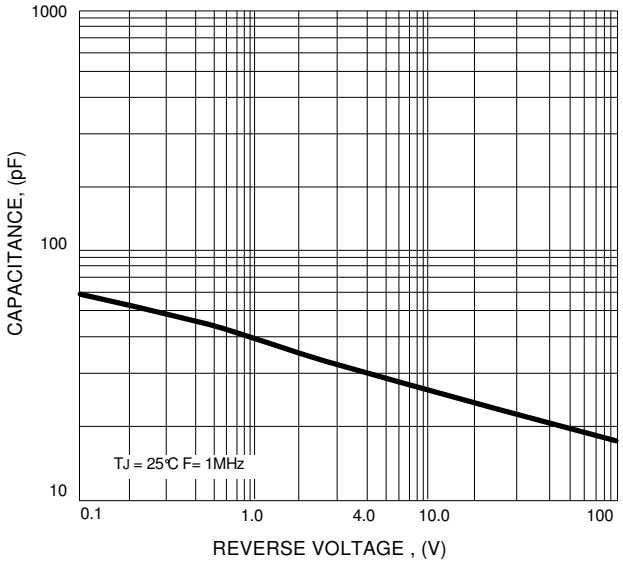
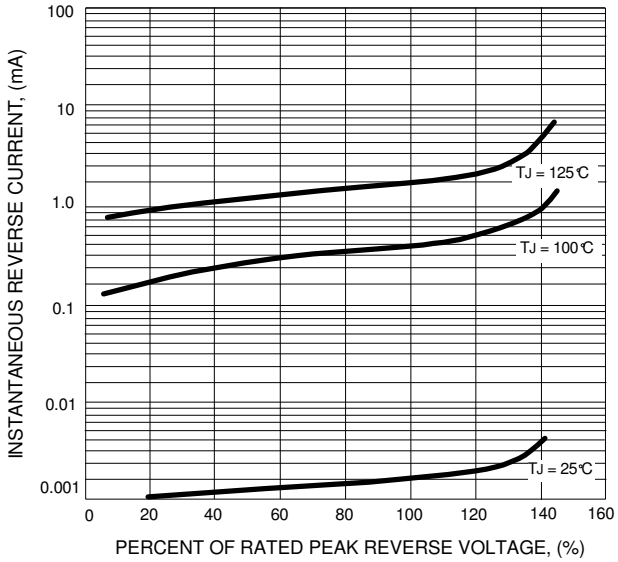


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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