LITE-ON SEMICONDUCTOR

SB570 thru SB5100

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 70 to 100 Volts
FORWARD CURRENT – 5.0 Amperes

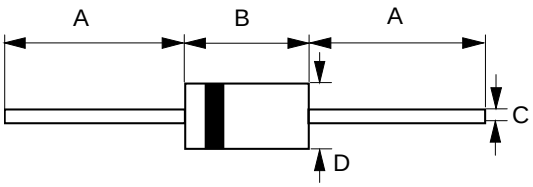
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop and high current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application

MECHANICAL DATA

- Case : JEDEC DO-201AD molded plastic
- Case Material: Molding compound, UL flammability classification 94V-0
- Mounting position: Any
- Polarity : Color band denotes cathode
- Weight: 1.0675grams (Approximate)

DO-201AD



DO-201AD		
DIM	MIN	MAX
A	25.4	--
B	7.30	9.50
C	1.20Φ	1.30Φ
D	4.80Φ	5.30Φ
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwis e specified.

ABSOLUTE RATINGS

PARAMETER		SYMBOL	SB570	SB580	SB590	SB5100	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	70	80	90	100	V
Maximum DC Blocking voltage		V_{DC}	70	80	90	100	V
Maximum Average rectified forward current	@T_c=110℃	I_F	5.0				A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	125				A
Operating ant Storage temperature range		T_J, T_{STG}	-55 ~ +150				℃

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	MAX	UNIT
Forward voltage (Note 1)	I_F=5A	T_J = 25℃ T_J = 125℃	V_F	0.85 0.75	V
Reverse leakage current at Rated DC blocking voltage		T_J = 25℃ T_J = 125℃	I_R	0.02 50	mA
Typical junction capacitance (Note 2)			C_j	135	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	$RthJ_a$ $RthJ_L$ $RthJ_C$	30 8 10	℃/W

Note :

(1) 300us pulse with, 2% duty cycle
(2) Measured at 1.0MHz and reverse voltage of 4.0V DC.
(3) Thermal resistance junction to Ambient, Lead and Case.

REV. 11, Jul-2015, KDGF06

RATING AND CHARACTERISTIC CURVES
SB570 thru SB5100

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

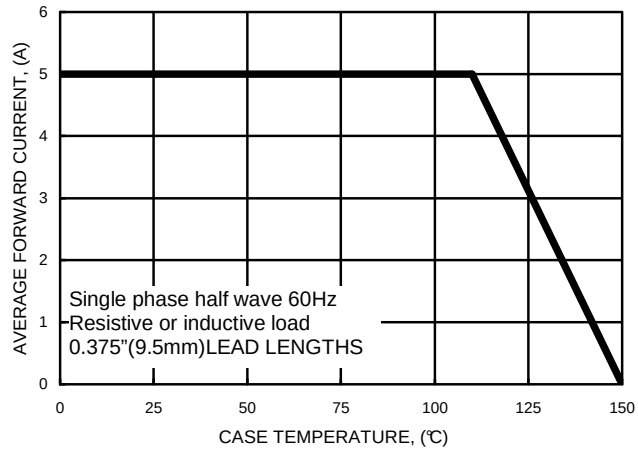


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

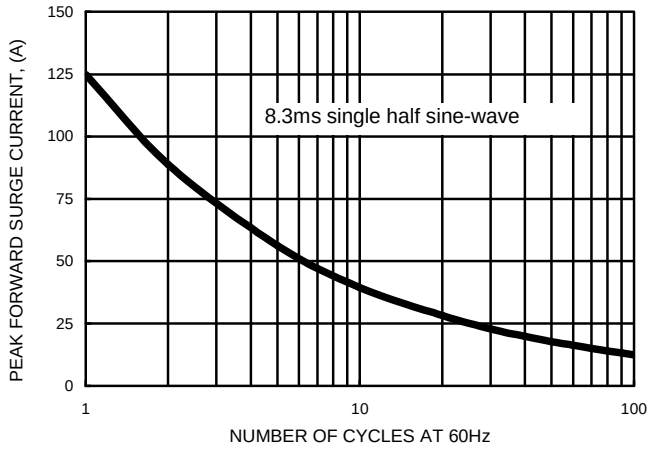


FIG.3- TYPICAL FORWARD CHARACTERISTICS

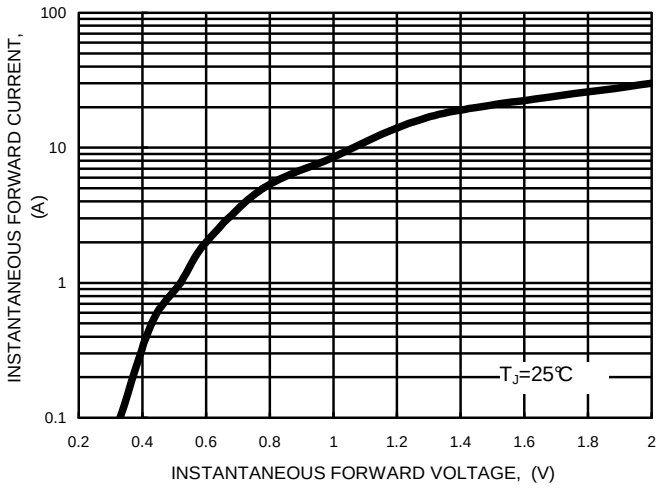


FIG.4- TYPICAL JUNCTION CAPACITANCE

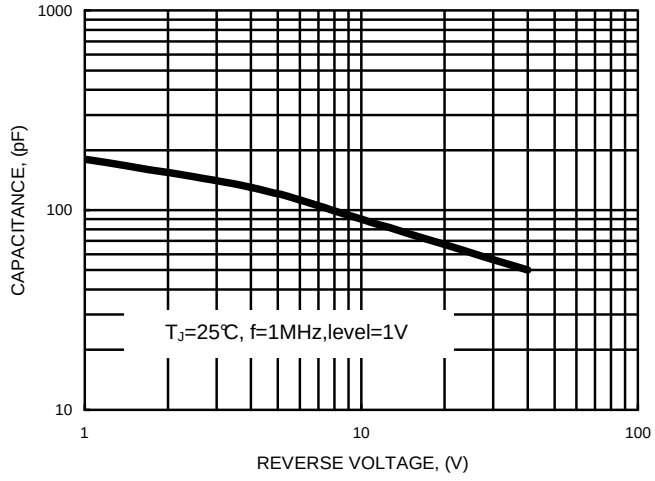
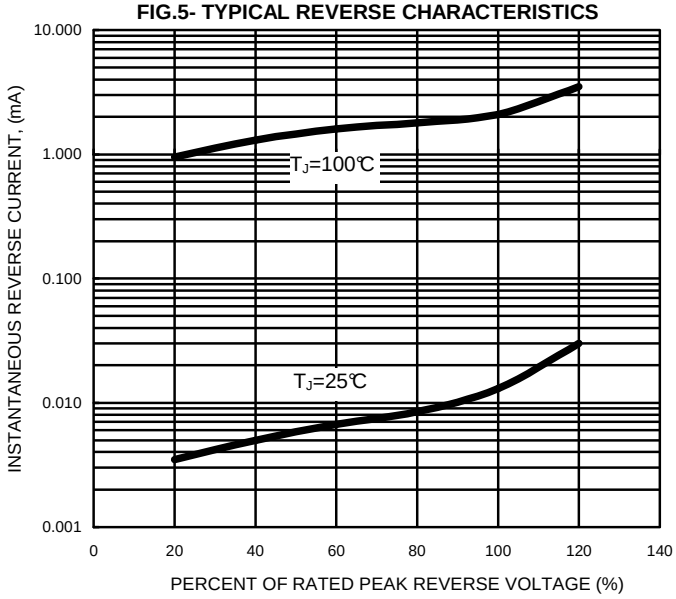


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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