LITE-ON SEMICONDUCTOR

SB5150

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 150 Volts
FORWARD CURRENT – 5.0 Amperes

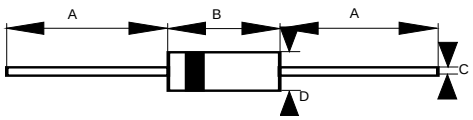
FEATURES

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

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic
- Polarity : Color band denotes cathode
- Weight : 1.0675 grams (Approximate)
- Mounting position : Any

DO-201AD



	DO-201AD	
Dim.	Min.	Max.
A	25.4	-
B	7.30	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwis e specified.

ABSOLUTE RATINGS

PARAMETER		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	150	V
Maximum RMS voltage		V_{RMS}	105	V
Maximum DC blocking voltage		V_{DC}	150	V
Average rectified forward current	@T_L = 150°C	$I_{(AV)}$	5.0	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	125	A
Peak Repetitive Reverse current	tp=2uS Square F=1KHz	I_{RRM}	1	A
Operating and Storage temperature range		T_J, T_{STG}	-55 ~ +175	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	TYP.	MAX	UNIT
Forward voltage	I_F = 5A	T_J = 25℃	V_F	--	0.92	V
Reverse leakage current	V_R = 150V	T_J = 25℃ T_J = 150℃	I_R	-- --	8 20	uA mA
Typical junction capacitance (Note 1)			C_J	150		pF

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 2,3)	$RthJ_L$ $RthJ_C$	10 12	°C/W

Note :

(1) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
(2) Thermal Resistance Junction to Lead
(3) Thermal Resistance Junction to Case

RATING AND CHARACTERISTIC CURVES
SB5150

FIG.1 - FORWARD CURRENT DERATING CURVE

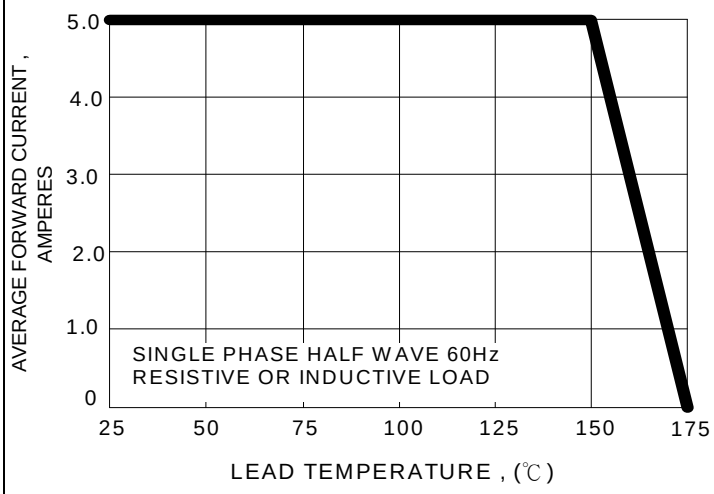


FIG.2 - MAXIMUM NONREPETITIVE SURGE CURRENT

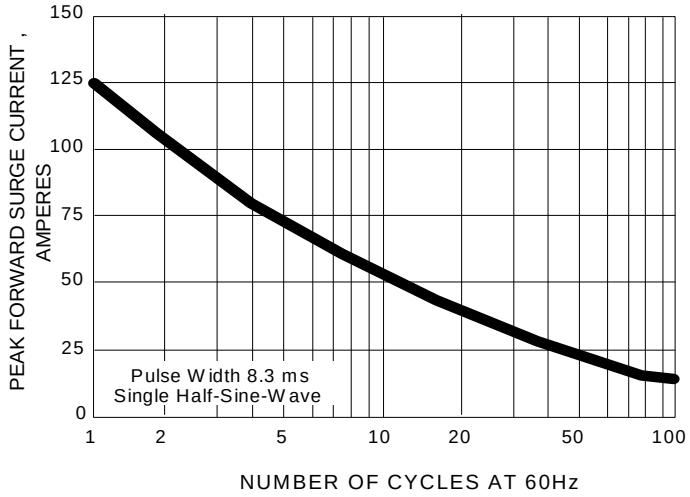


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

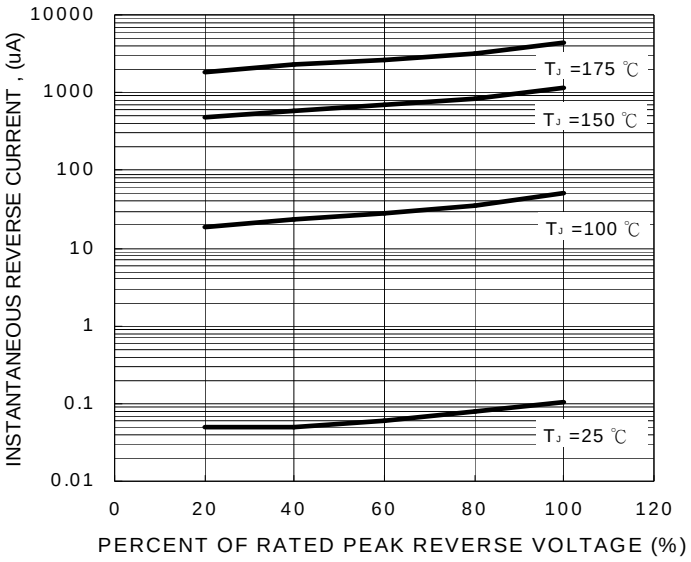


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

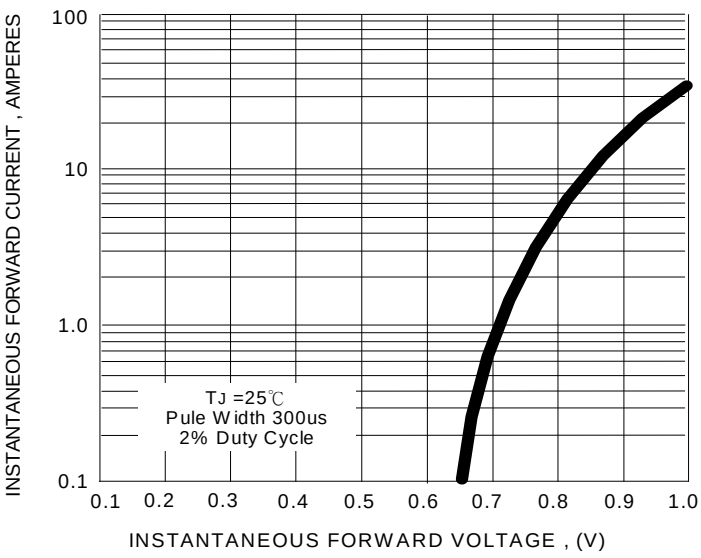
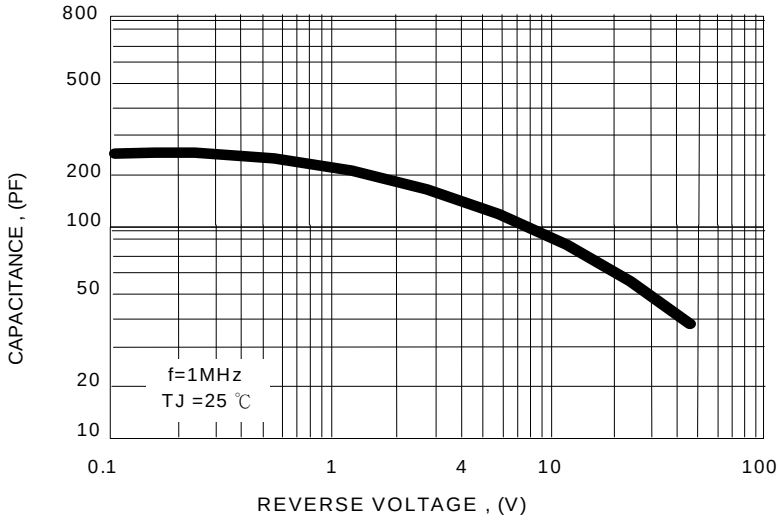


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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