LITE-ON SEMICONDUCTORS

SBL20V100CT

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 20 Amperes

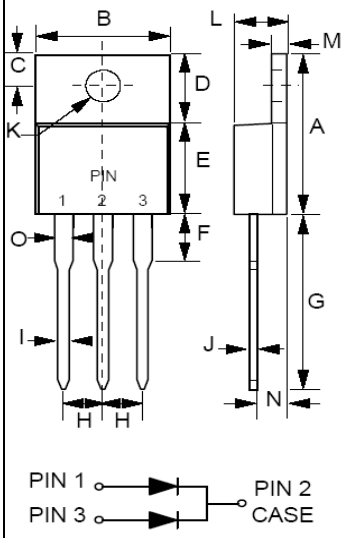
FEATURES

- Low power loss, high efficiency
- Ultra low forward voltage drop
- High surge capability
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : TO-220AB mold plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf-cm)

TO-220AB



TO-220AB		
DIM.	MIN.	MAX.
A	14.22	15.88
B	9.65	10.67
C	2.54	3.43
D	5.84	6.86
E	8.26	9.28
F	-	6.35
G	12.70	14.73
H	2.29	2.79
I	0.51	1.14
J	0.30	0.64
K	3.53 ⌀	4.09 ⌀
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92
O	1.14	1.70
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER		SYMBOL	SBL20V100CT	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Maximum RMS Voltage		V_{RMS}	70	V
Maximum DC Blocking Voltage		V_{DC}	100	
Average Rectified Output Current	@TC=135°C	$I_{(AV)}$	20	A
Peak Forward Surge Current 8.3ms single half sine-wave	@Tj=25°C	I_{FSM}	180	A
Maximum Forward Voltage (Note 1)	IF=10A@Tj=25°C IF=10A@Tj=125°C	V_F	0.78 0.67	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Tj=25°C Tj=125°C	I_R	0.1 10	mA
Typical Junction Capacitance per element (Note 2)		C_J	280	pF
Typical Thermal Resistance (Note 3)		$R_{\Theta JC}$	2.8	°C/W
Typical Thermal Resistance (Note 3)		$R_{\Theta JL}$	3.0	°C/W
Operating junction temperature range		T_J	-55 to +175	°C
Storage temperature range		T_{STG}	-55 to +175	°C

REV. 1, Mar-2011, KTHC97

Notes :

(1) 300us Pulse Width, 2% Duty Cycle.
(2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
(3) Thermal Resistance Junction to Case. Device mounted on 75 x 75 x 2 mm copper plate.

RATING AND CHARACTERISTIC CURVES
SBL20V100CT

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

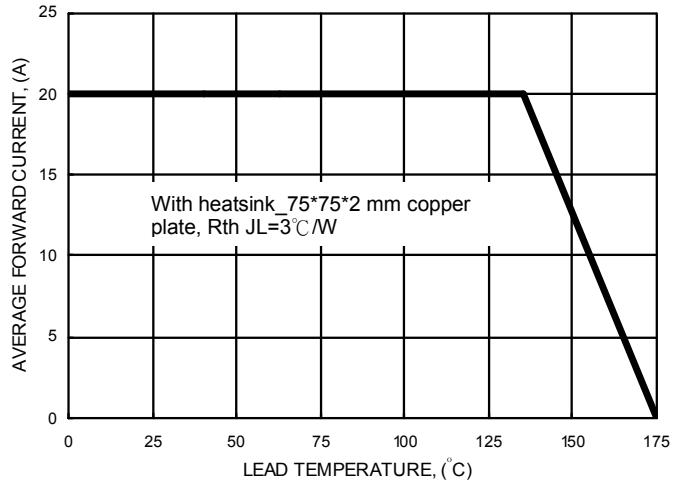


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

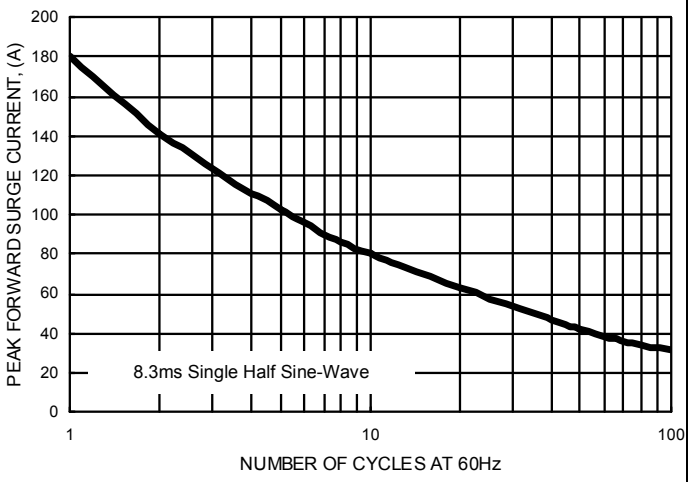


FIG.3- TYPICAL REVERSE CHARACTERISTICS

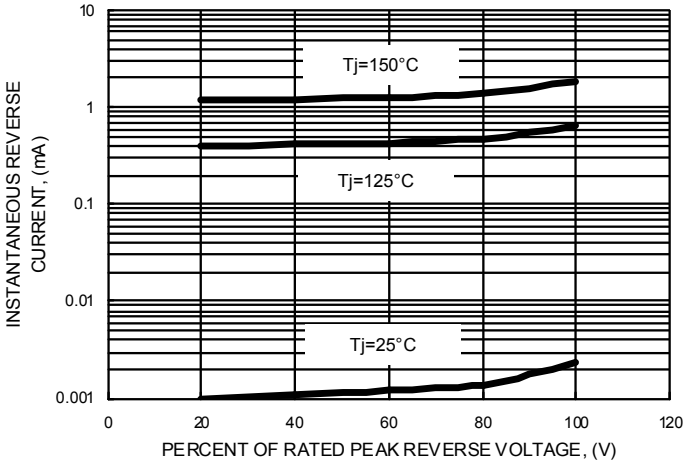


FIG.4- TYPICAL FORWARD CHARACTERISTICS

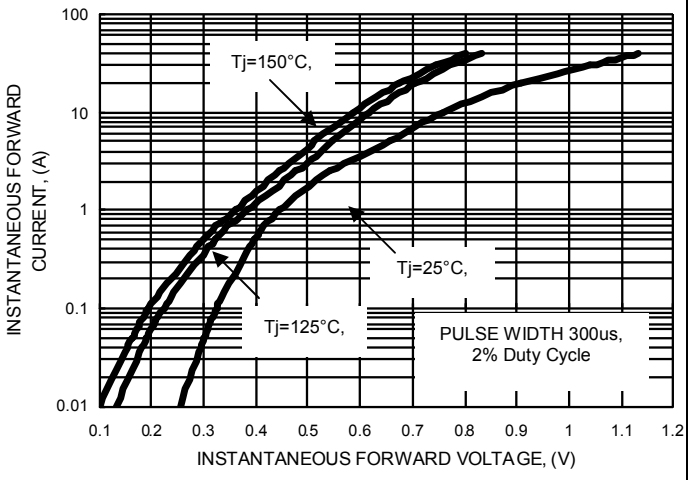
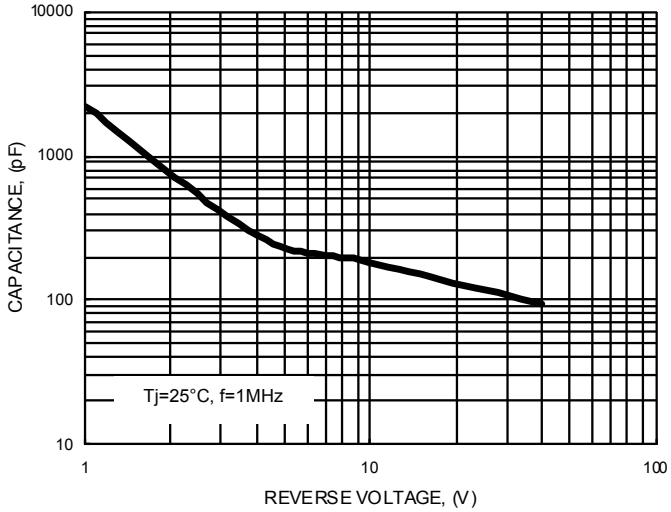


FIG.5- TYPICAL JUNCTION CAPACITANCE



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