Sooner Power Semiconductor CO., LTD

SBL2040CT thru 2060CT

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 40 to 60 Volts FORWARD CURRENT - 20 Ampere

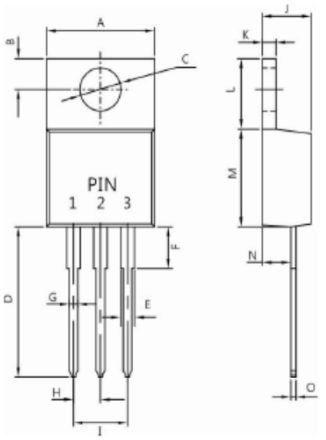
FEATURES

- Metal of silicon rectifier, majority carrier conducton
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequence inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any

TO-220AB



Dim.	Min.	Max.
A	-----	10.50
B	2.50	3.50
C	3.50	4.10
D	13.10	13.90
E	1.15	1.45
F	-----	6.35
G	0.65	0.95
H	4.80	5.30
I	4.40	4.80
J	1.14	1.40
K	5.84	6.86
L	8.50	9.60
M	2.03	2.92
N	0.30	0.64
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SBL 2040CT	SBL 2045CT	SBL 2060CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	60	V
Maximum RMS Voltage	V_{RMS}	28	31.5	42	V
Maximum DC Blocking Voltage	V_{DC}	40	45	60	V
Maximum Average Forward Rectified Current (See Fig.1) @T_C=95℃	$I_{(AV)}$	20			A
Peak Forward Surge current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	250		225	A
Maximum forward Voltage at 10A DC (Note 1)	V_F	0.55		0.75	V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	1 50		0.1 50	mA
Typical Junction Capacitance (Note 2)	C_J	600			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2.0			℃/W
Operating Temperature Range	T_J	-55 to +125			℃
Storage Temperature Range	T_{STG}	-55 to +150			℃

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.

REV.0, 01.-Oct-2013

RATING AND CHARACTERISTIC CURVES
SBL2040CT thru SBL2060CT

FIG. 1 - FORWARD CURRENT DERATING CURVE

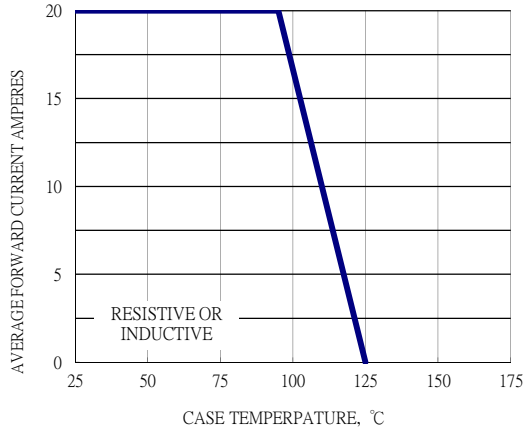


FIG.2 - MIXMUM NON-REPETITIVE SURGE CURRENT

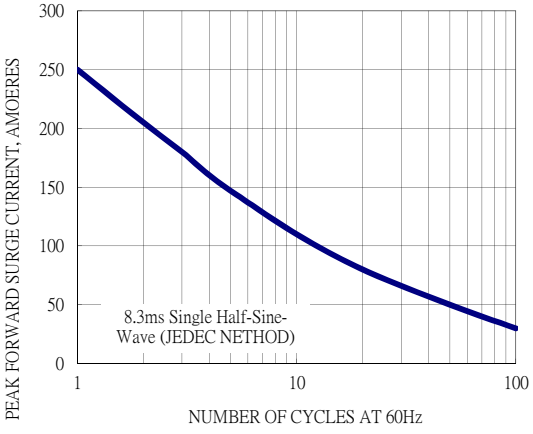


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

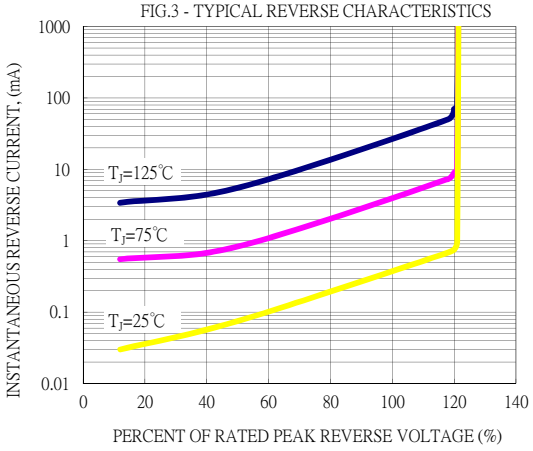


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

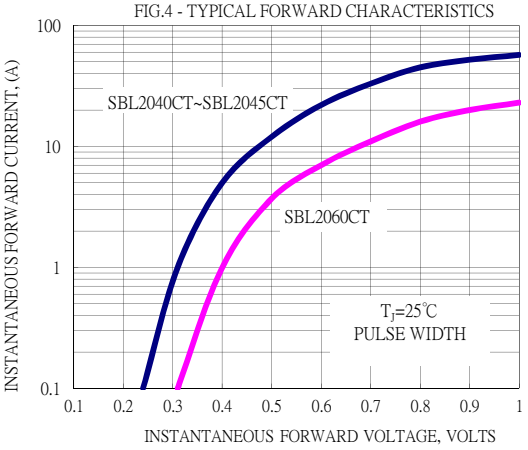


FIG.5 - TYPICAL JUNCTION CAPACITANCE