LITE-ON SEMICONDUCTOR

SBL2030CT thru 2060CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE **- 30** to **60** Volts
FORWARD CURRENT **- 20** Amperes

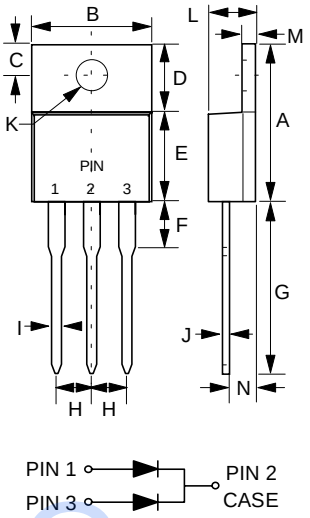
FEATURES

- 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 frequency inverters,free whelling,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



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
All Dimensions in millimeter		

Datasheet.Company

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 2030CT	SBL 2035CT	SBL 2040CT	SBL 2045CT	SBL 2050CT	SBL 2060CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	50	60	V
Maximum RMS Voltage	V_{RMS}	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	50	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						A
Maximum Forward Voltage at 10A DC (Note 1)	V_F	0.55				0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J=25℃ @T_J=100℃	I_R	1 50						mA
Typical Junction Capacitance per element (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. 3, 13-Sep-2001, KTHC06

FIG.1 - FORWARD CURRENT DERATING CURVE

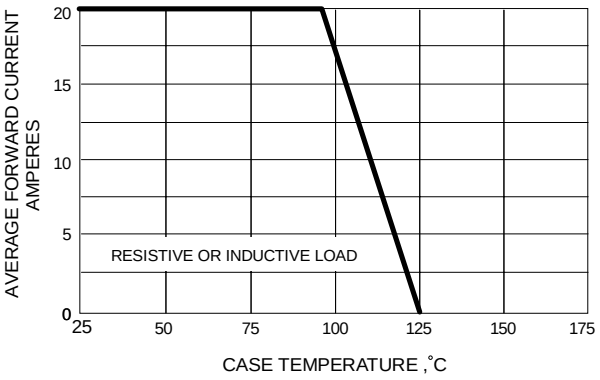


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

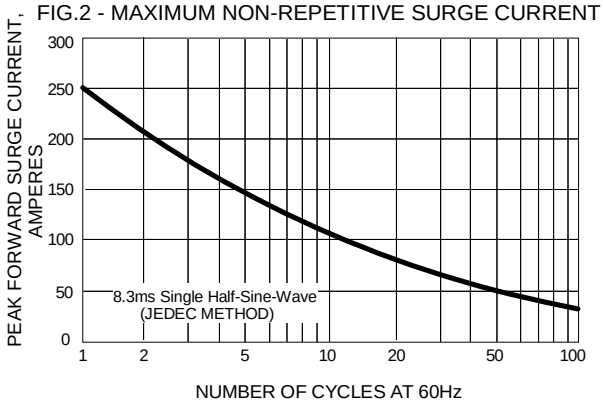


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

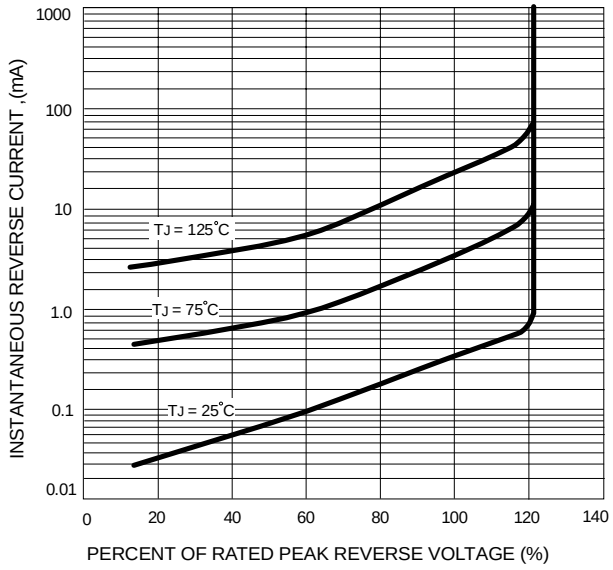


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

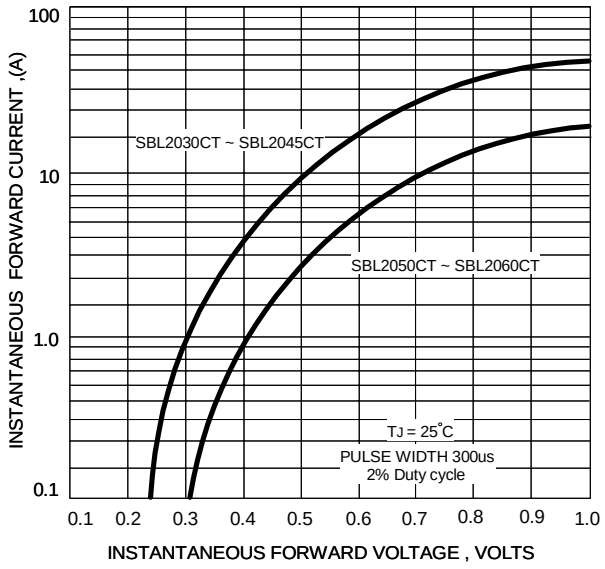
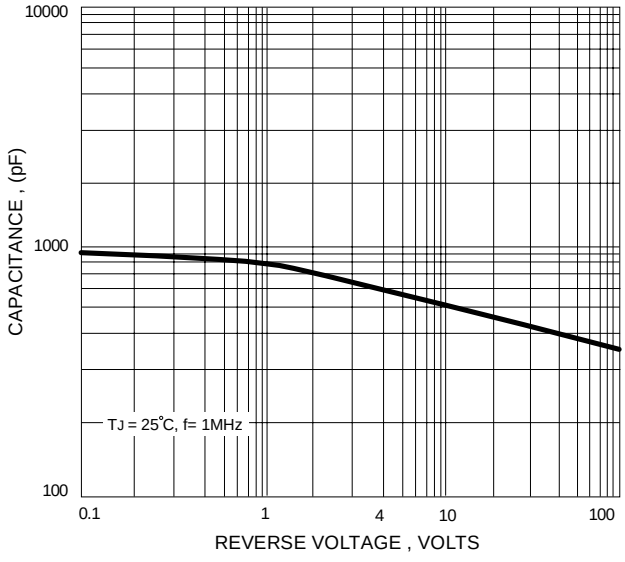



FIG.5 - TYPICAL JUNCTION CAPACITANCE