

SBL3030CT thru 3045CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 30 to 45 Volts
FORWARD CURRENT – 30 Amperes

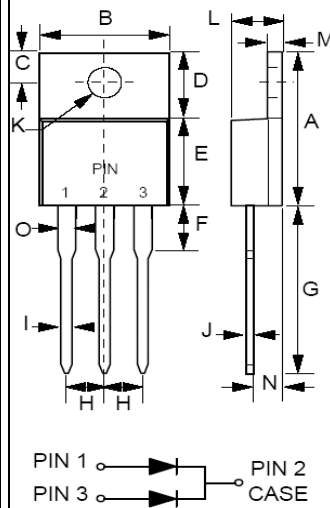
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- 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 molded 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 \varnothing	4.09 \varnothing
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	SBL3030CT	SBL3040CT	SBL3045CT	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	40	45	V
Maximum RMS Voltage	V_{RMS}	21	28	31	V
Maximum DC Blocking Voltage	V_{DC}	30	40	45	V
Average Rectified Output Current @TC=95°C	I_F	30			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	250			A
Maximum Forward Voltage (Note 1) $I_F=15A@ T_J=25^\circ C$	V_F	0.55			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ C$ $T_J=100^\circ C$	I_R	0.5 50			mA
Typical Junction Capacitance per element (Note 2)	C_J	450			pF
Typical thermal resistance Junction to Case (Note 3)	$R_{\theta JC}$	1.8			°C/W
Operating junction temperature range	T_J	-55 to +125			°C
Storage temperature range	T_{STG}	-55 to +150			°C

Note :

- (1) 300us Pulse Width, 2% Duty Cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC} .
- (3) Thermal Resistance Junction to Case, device mounted on L200xW200xH2mm_copper heat sink.

REV.3, Apr-2011, KTHC62

FIG.1- FORWARD CURRENT DERATING CURVE

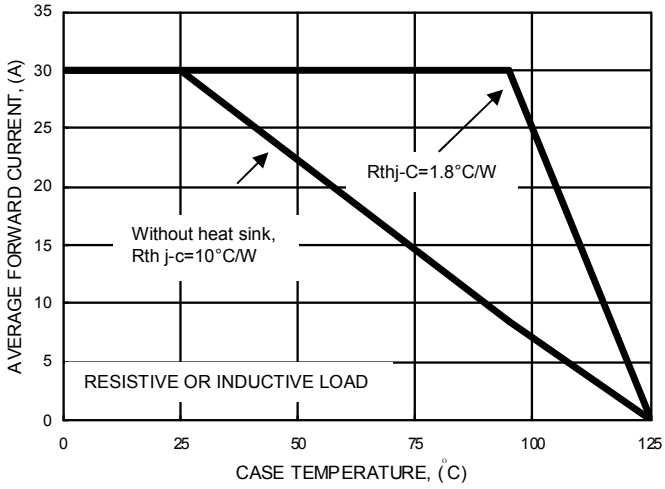


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

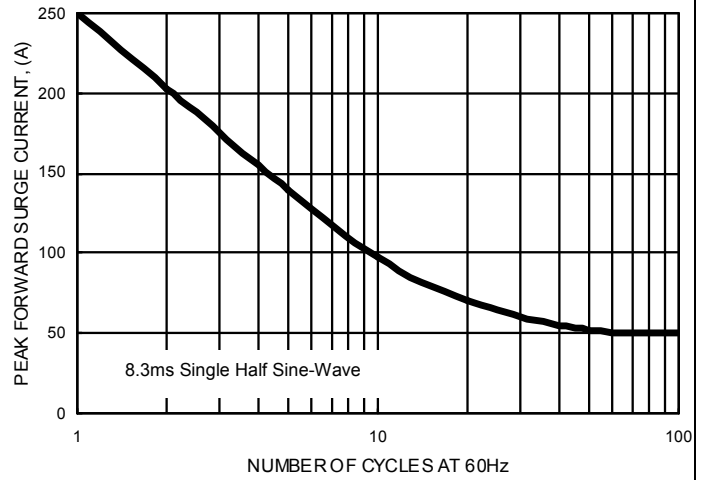


FIG.3- TYPICAL REVERSE CHARACTERISTICS

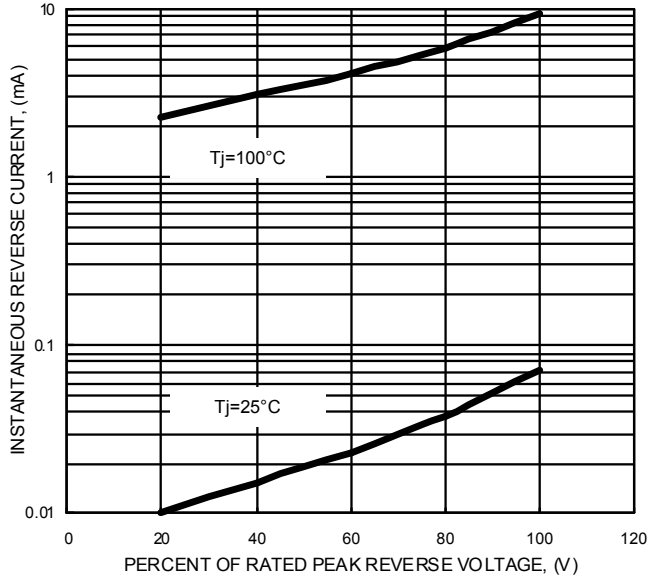


FIG.4- TYPICAL FORWARD CHARACTERISTICS

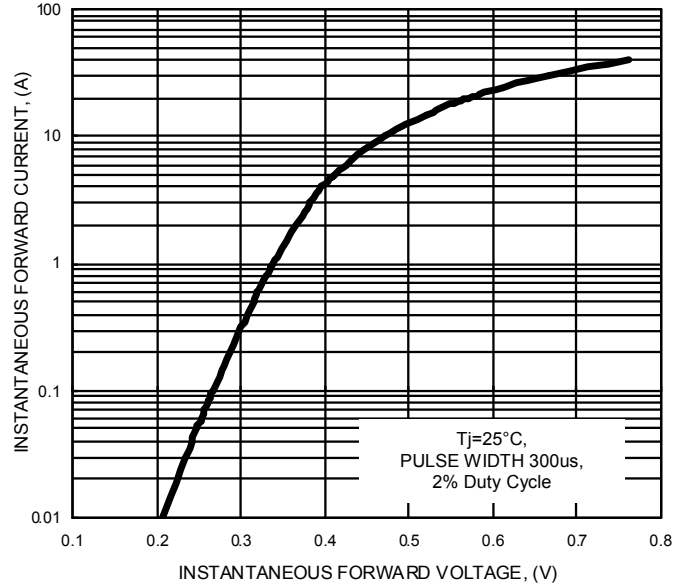


FIG.5- TYPICAL JUNCTION CAPACITANCE

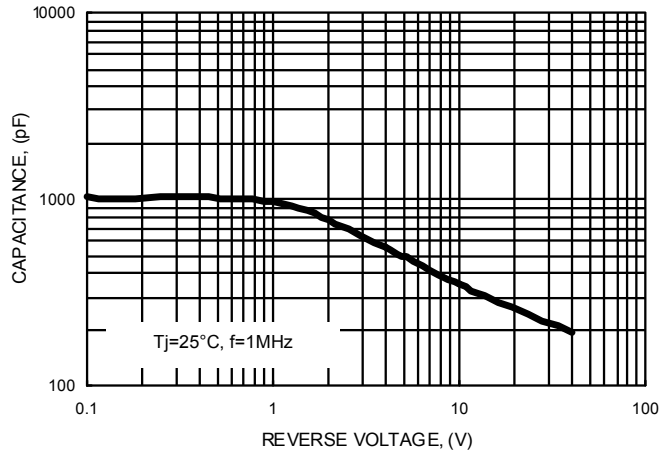
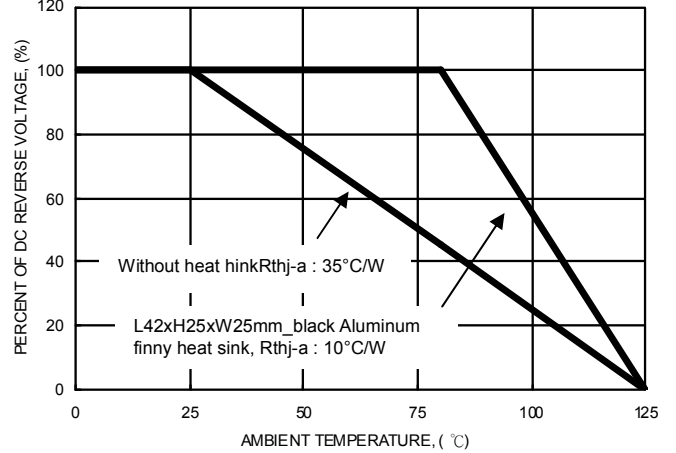


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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