

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **40 to 60** Volts
FORWARD CURRENT - **10** Amperes

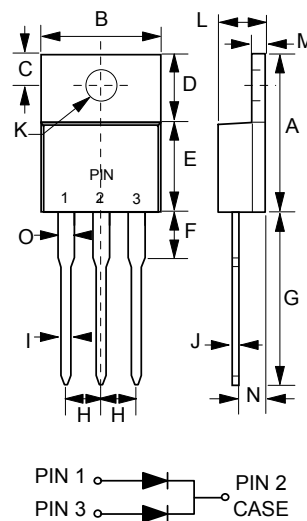
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- 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
- Terminals: Lead Free Plating (Matte Tin Finish)
- 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 Ø	4.09 Ø
L	3.56	4.83
M	1.14	1.40
N	2.03	2.92
O	1.14	1.50
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SBL1040CTW	SBL1045CTW	SBL1060CTW	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°C	I _(AV)	10			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	125			A
Maximum Forward Voltage at 5A DC (Note 1)	V _F	0.55		0.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	I _R	0.2 5		0.3 40	mA
Typical Junction Capacitance per element (Note 2)	C _J	250			pF
Typical Thermal Resistance (Note 3)	R _{θJC}	3.0			°C/W
Operating Temperature Range	T _J	-55 to +125			°C
Storage Temperature Range	T _{STG}	-55 to +150			°C

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. 2, Jan-2011, KTHC89

FIG.1 - FORWARD CURRENT DERATING CURVE

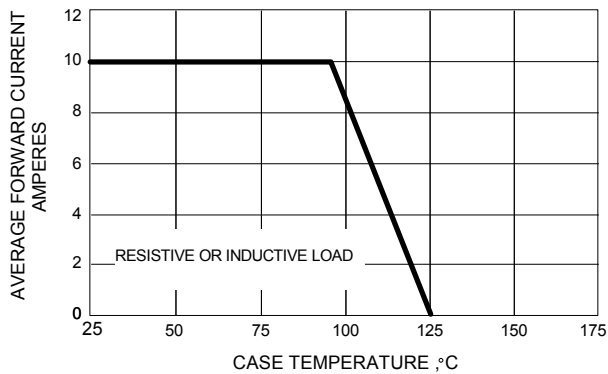


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

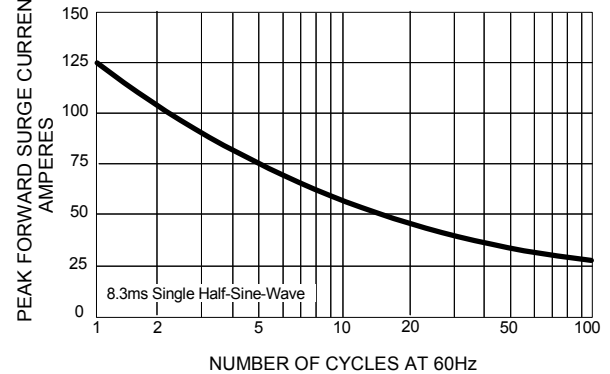


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

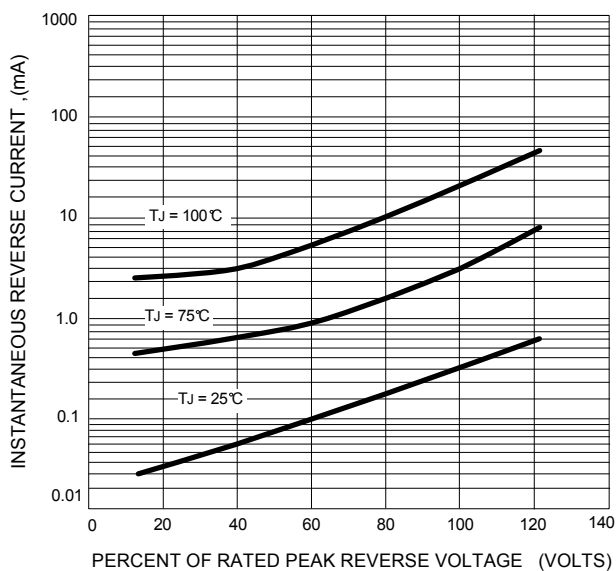


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

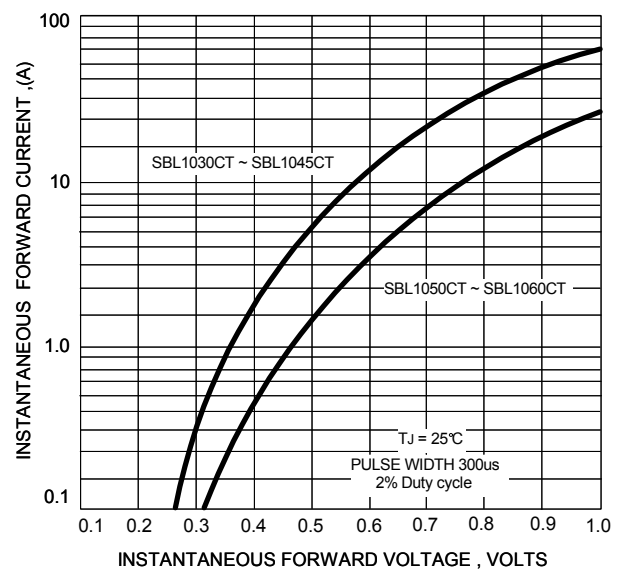
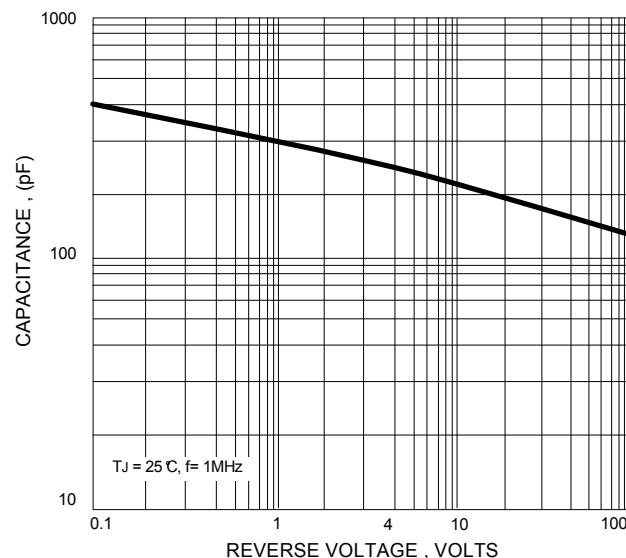


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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