

SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE – 50 to 60 Volts
FORWARD CURRENT – 10 Amperes**

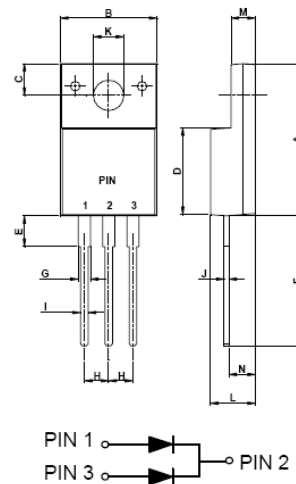
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge 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: ITO-220AB molded plastic
- Polarity: As marked on the body
- Weight: 0.06 ounces, 1.70 grams
- Mounting position: Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf-cm)

ITO-220AB



ITO-220AB		
DIM.	MIN.	MAX.
A	15.50	16.50
B	10.0	10.40
C	3.00	3.50
D	9.00	9.30
E	2.90	3.60
F	13.46	14.22
G	1.15	1.70
H	2.40	2.70
I	0.75	1.00
J	0.45	0.70
K	3.00 \varnothing	3.30 \varnothing
L	4.36	4.77
M	2.48	2.80
N	2.50	2.80
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SBF1050CT2	SBF1060CT2	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	60	V
Maximum RMS Voltage	V_{RMS}	35	42	V
Maximum DC Blocking Voltage	V_{DC}	50	60	V
Maximum Average Forward Rectified Current(See Fig.1) @TC=80°C	$I_{(AV)}$	10		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150		A
Maximum Forward Voltage at 5A DC (Note1)	VF	0.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	I_R	0.5 30		mA
Typical Junction Capacitance per element (Note 2)	C_J	250		pF
Typical thermal resistance _ Junction to Lead (Note 3)	$R_{\theta JL}$	4.5		°C/W
Operating junction temperature range	T_J	-55 to +125		°C
Storage temperature range	T_{STG}	-55 to +150		°C
Dielectric Strength from terminals to case, AC with t=1 minute, RH<30%	V_{dis}	2000		V

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 Lead with L42xH25xW25mm_black Aluminum finny heat sink..

REV. 1, Oct-2010, KTHC77

RATING AND CHARACTERISTIC CURVES
SBF1050CT2 thru SBF1060CT2



FIG.1- FORWARD CURRENT DERATING CURVE

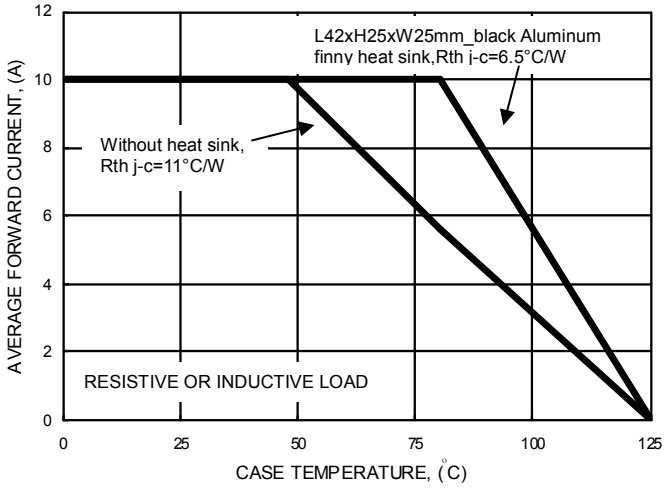


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT



FIG.3- TYPICAL REVERSE CHARACTERISTICS

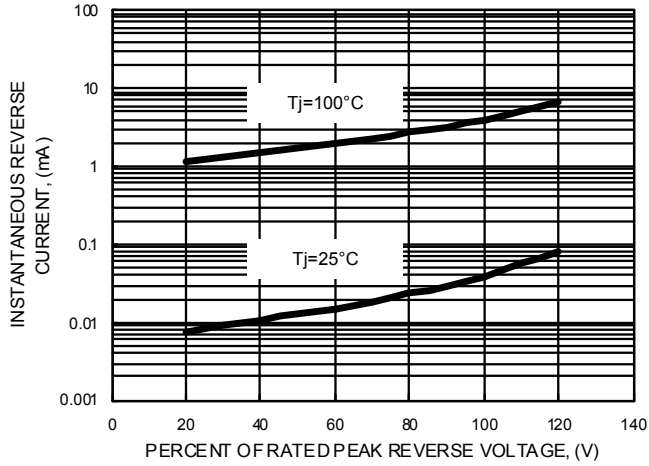


FIG.4- TYPICAL FORWARD CHARACTERISTICS

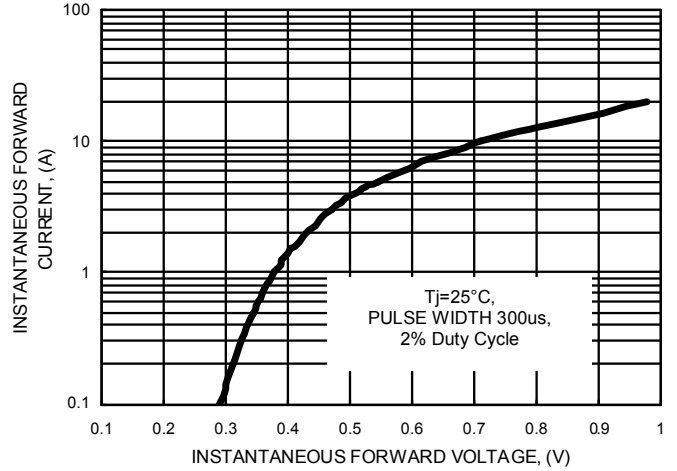


FIG.5- TYPICAL JUNCTION CAPACITANCE

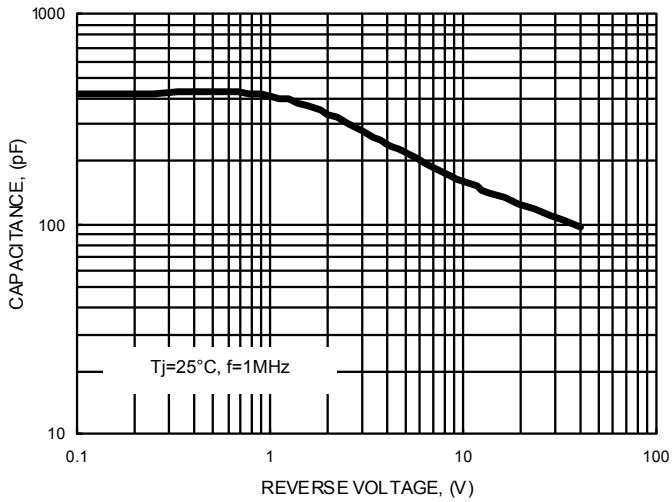
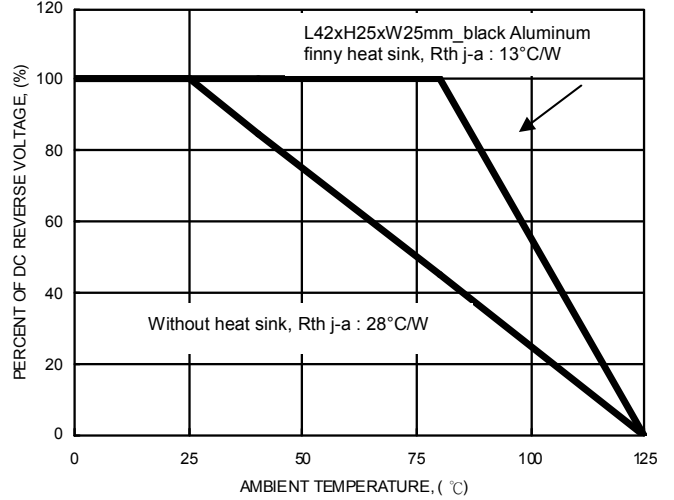


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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