

SCHOTTKY BARRIER RECTIFIERS

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

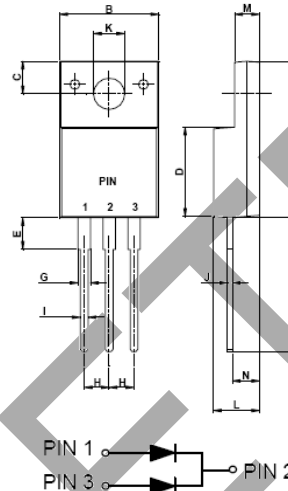
FEATURES

- 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
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**

MECHANICAL DATA

- Package: ITO-220AB molded plastic
- Polarity: As marked on the body
- Weight: 0.06 ounces, 1.70 grams
- Mounting position: Any
- Max. mounting torque = 0.5N.m (5.1Kgf-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	SBF1060CT	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	60	V
Maximum RMS Voltage	VRMS	42	V
Maximum DC Blocking Voltage	VDC	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	IFSM	150	A
Maximum Forward Voltage at 5A DC (Note 3)	VF	0.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @Tj=+25°C @Tj=+100°C	IR	0.3 30	mA
Typical Junction Capacitance per Element (Note 4)	CJ	250	pF
Typical Thermal Resistance_Junction to Lead (Note 5)	R θ JL	4.5	°C/W
Operating Junction Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	TSTG	-55 to +150	°C
Dielectric Strength from Terminals to Case AC with t = 1 Minute, RH < 30%	Vdis	2000	V

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. 300us Pulse Width, 2% Duty Cycle.
4. Measured at 1.0MHz and applied reverse voltage of 4.0 V DC.
5. Thermal Resistance Junction to Lead with L42 x H25 x W25mm_black aluminum finny heat sink.

RATING AND CHARACTERISTIC CURVES
SBF1060CT

FIG.1- FORWARD CURRENT DERATING CURVE

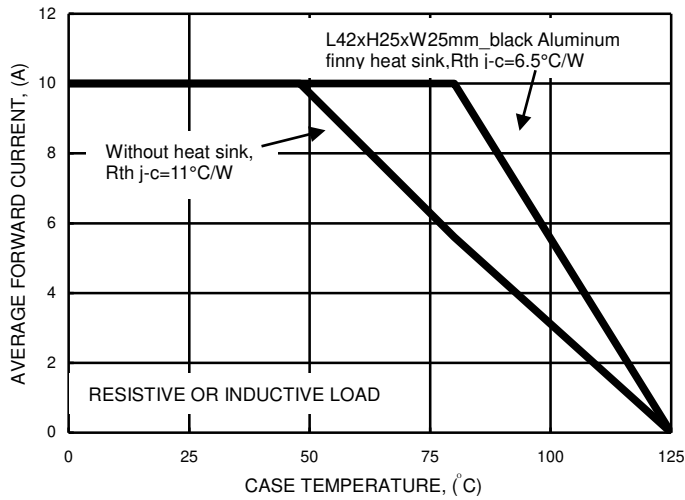


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

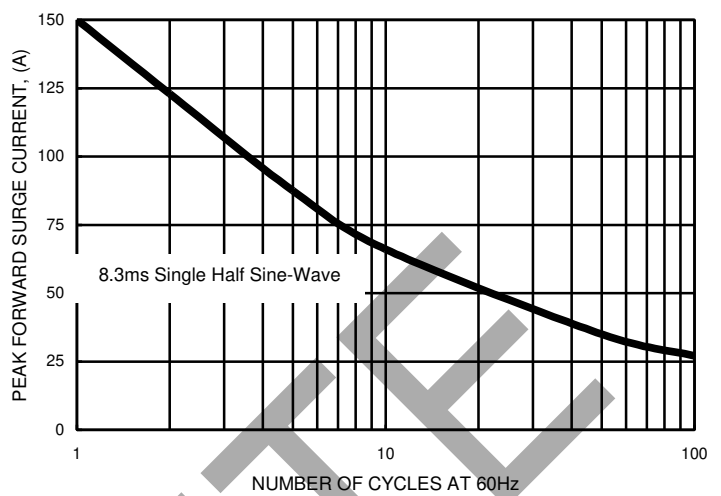


FIG.3- TYPICAL REVERSE CHARACTERISTICS

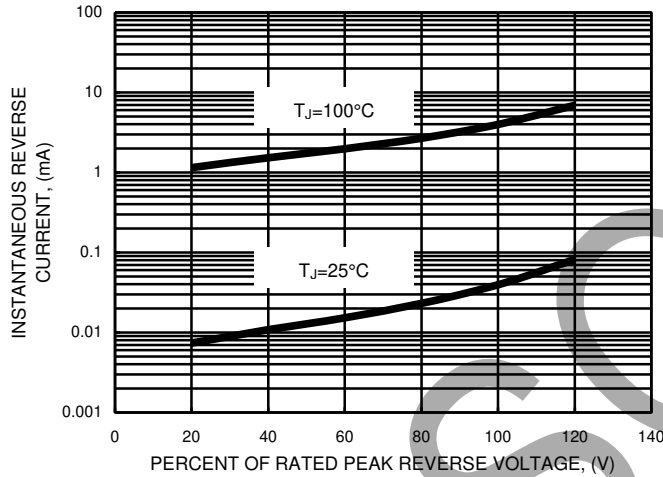


FIG.4- TYPICAL FORWARD CHARACTERISTICS

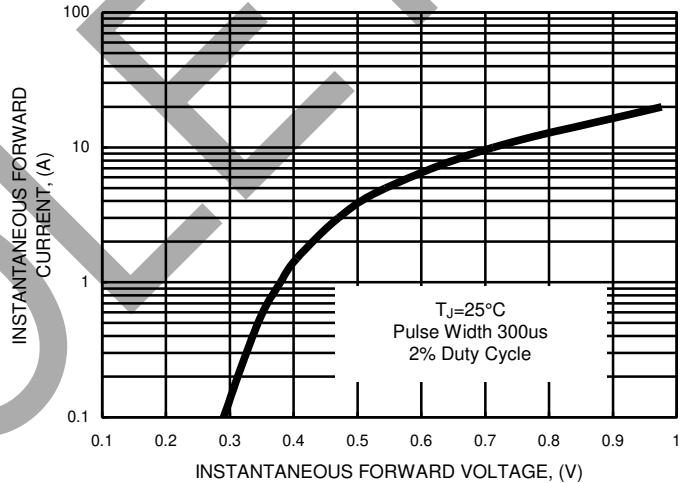


FIG.5- TYPICAL JUNCTION CAPACITANCE

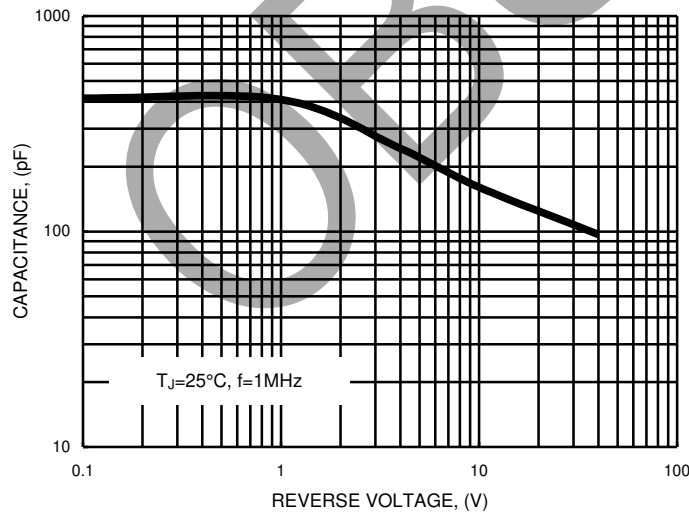
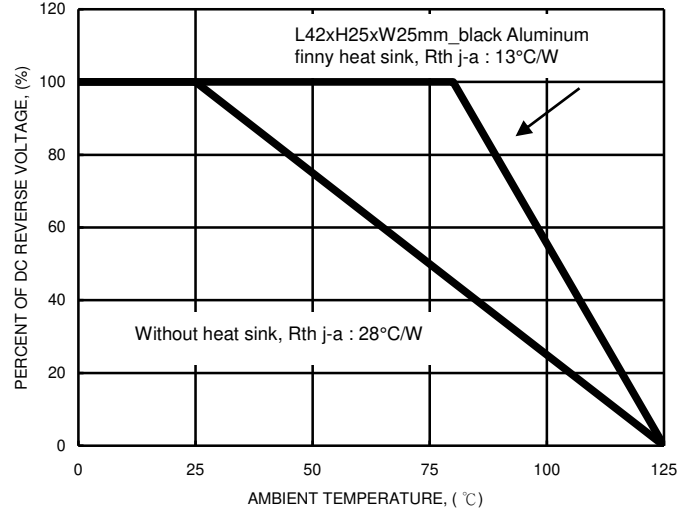


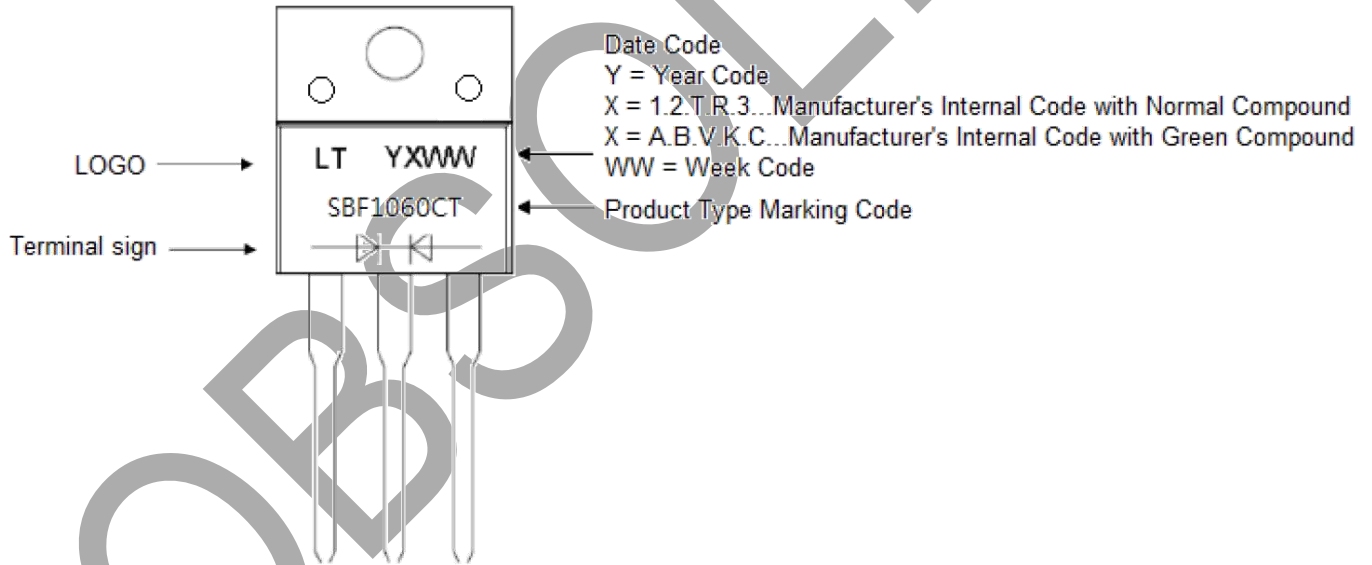
FIG.6- DC REVERSE VOLTAGE DERATING CURVE



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
SBF1060CT	ITO-220AB	50pcs	Tube

Marking Information:



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