

# SB1020CT – SB10100CT

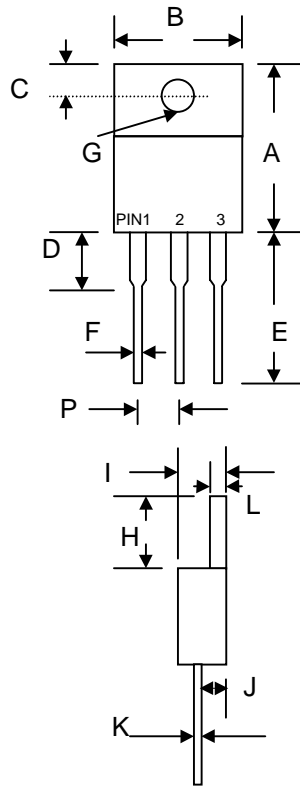
## 10A SCHOTTKY BARRIER RECTIFIER

### Features

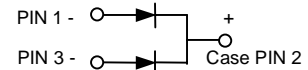
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: TO-220 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: As Marked on Body
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



TO-220		
Dim	Min	Max
A	14.9	15.1
B	—	10.5
C	2.62	2.87
D	3.56	4.06
E	13.46	14.22
F	0.68	0.94
G	3.74 Ø	3.91 Ø
H	5.84	6.86
I	4.44	4.70
J	2.54	2.79
K	0.35	0.64
L	1.14	1.40
P	2.41	2.67
All Dimensions in mm		



### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	SB 1020CT	SB 1030CT	SB 1040CT	SB 1050CT	SB 1060CT	SB 1080CT	SB 10100CT	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	V
Average Rectified Output Current @ $T_C = 95^\circ\text{C}$	$I_O$	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150							A
Forward Voltage @ $I_F = 5.0\text{A}$	$V_{FM}$	0.55		0.75		0.85		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	0.5 50							mA
Typical Junction Capacitance (Note 1)	$C_j$	700							pF
Operating and Storage Temperature Range	$T_i, T_{STG}$	-65 to +150							$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

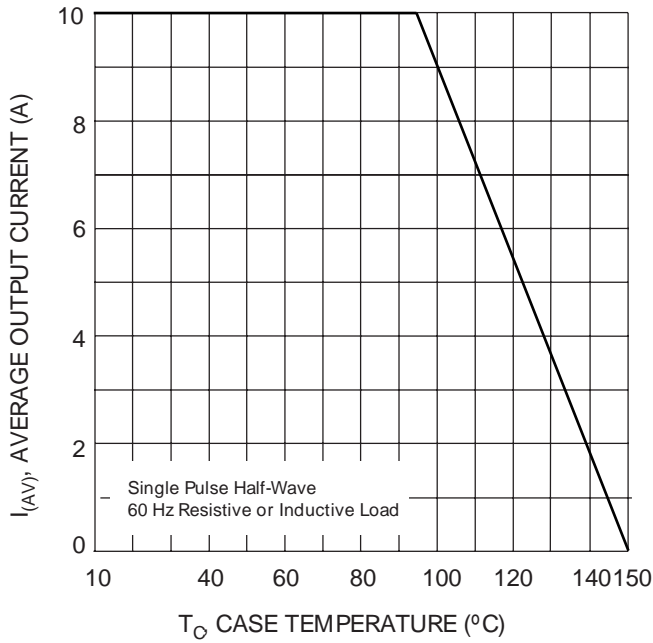


Fig. 1 Forward Current Derating Curve

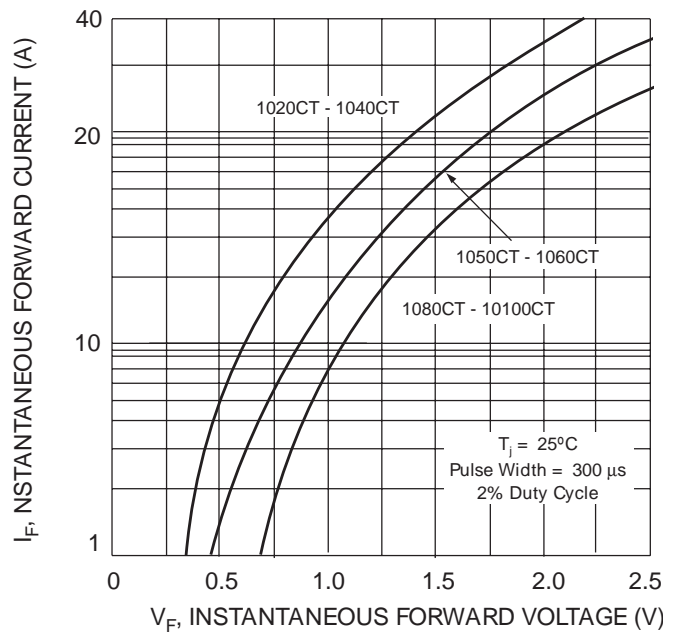


Fig. 2 Typical Forward Characteristics

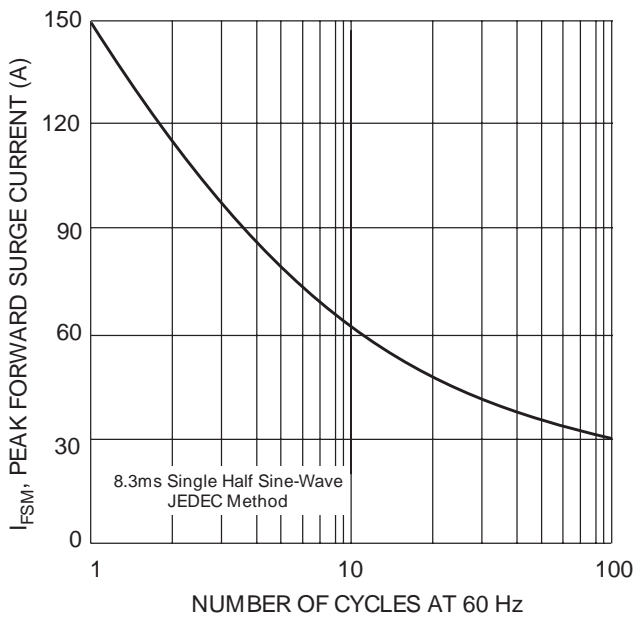


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

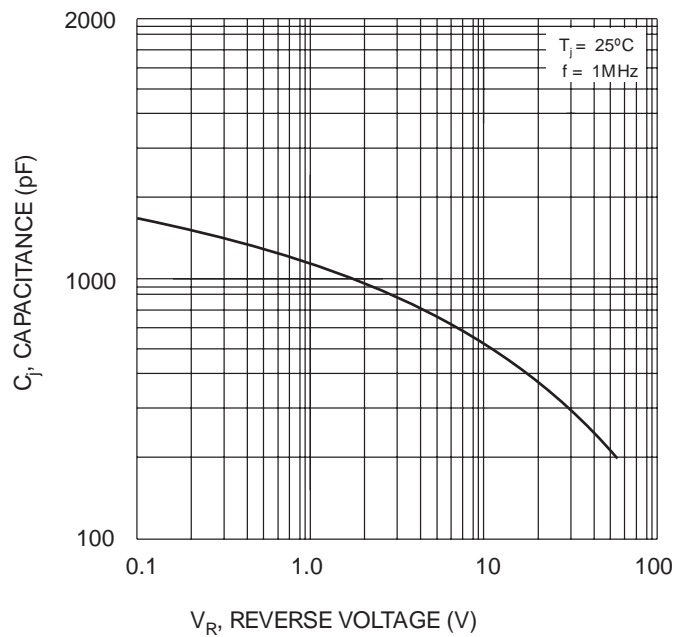


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB1020CT	TO-220	50 Units/Tube
SB1030CT	TO-220	50 Units/Tube
SB1040CT	TO-220	50 Units/Tube
SB1050CT	TO-220	50 Units/Tube
SB1060CT	TO-220	50 Units/Tube
SB1080CT	TO-220	50 Units/Tube
SB10100CT	TO-220	50 Units/Tube

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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