

# SB1020 – SB10100

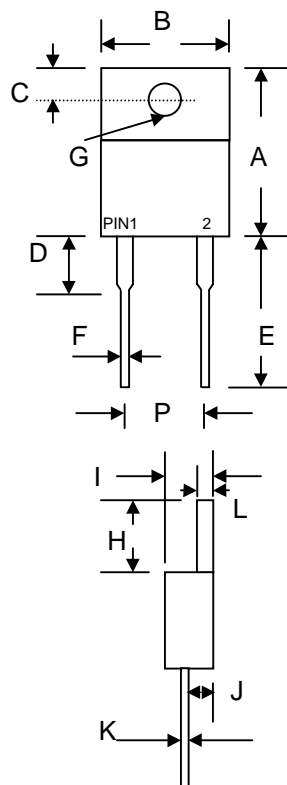
## 10A SCHOTTKY BARRIER RECTIFIER

### Features

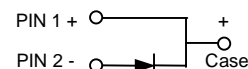
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: TO-220A Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



TO-220A		
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	4.95	5.20
All Dimensions in mm		

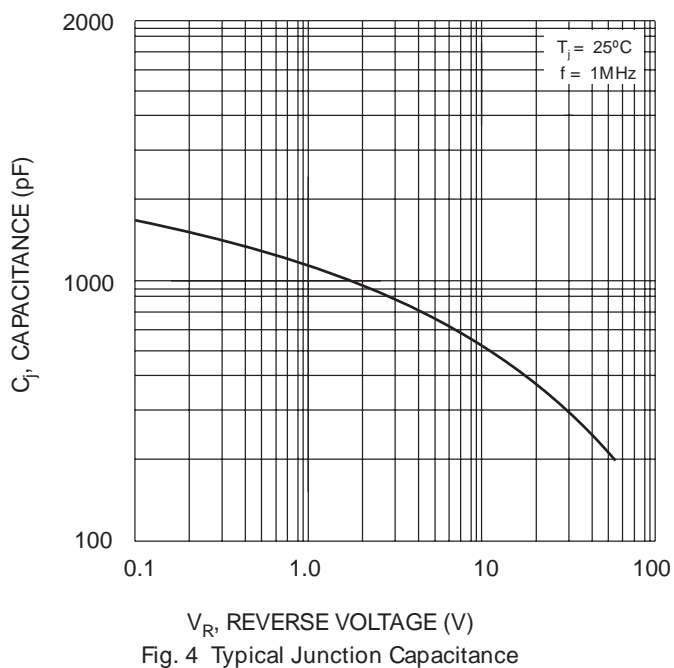
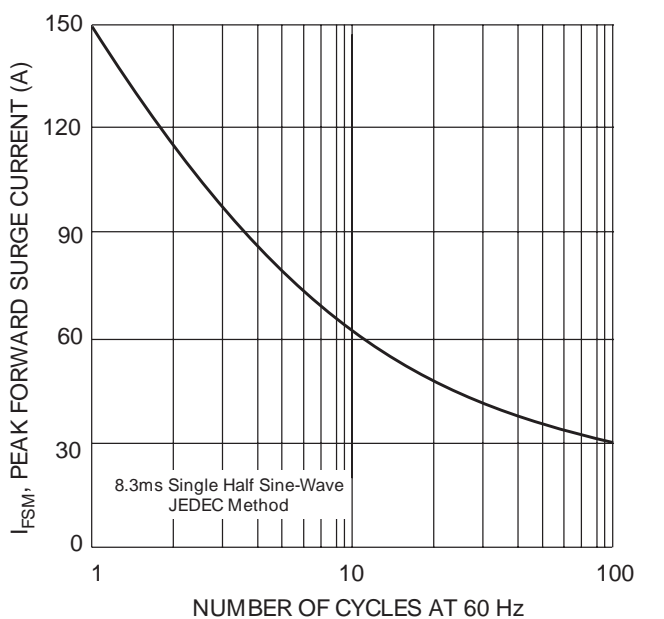
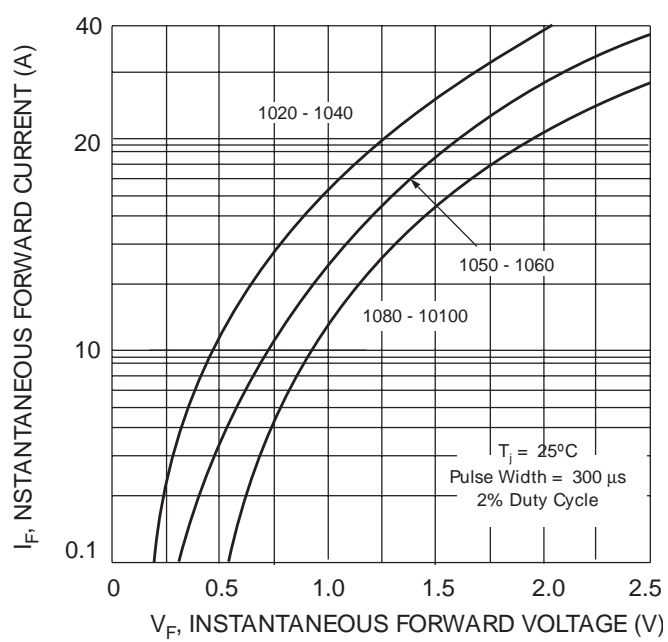
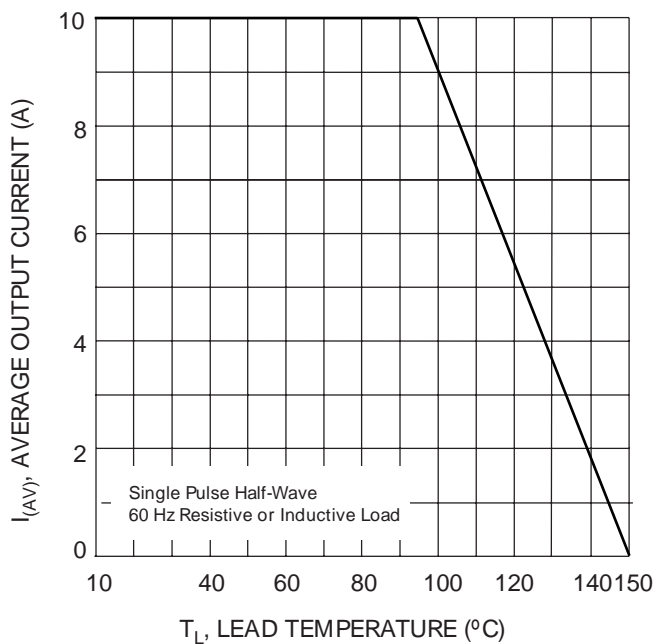


### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

Characteristic	Symbol	SB 1020	SB 1030	SB 1040	SB 1050	SB 1060	SB 1080	SB 10100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	50	60	80	100	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	70	V
Average Rectified Output Current @T <sub>C</sub> = 95°C	I <sub>O</sub>	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							A
Forward Voltage @I <sub>F</sub> = 10A	V <sub>FM</sub>	0.55			0.75		0.85		V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.5 50							mA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	700							pF
Typical Thermal Resistance Junction to Case (Note 2)	R <sub>θJC</sub>	3.5							K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150							°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance junction to case mounted on heatsink.



## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB1020	TO-220A	50 Units/Tube
SB1030	TO-220A	50 Units/Tube
SB1040	TO-220A	50 Units/Tube
SB1050	TO-220A	50 Units/Tube
SB1060	TO-220A	50 Units/Tube
SB1080	TO-220A	50 Units/Tube
SB10100	TO-220A	50 Units/Tube

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

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**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.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

*We power your everyday.*