

# SB2030PT – SB2060PT

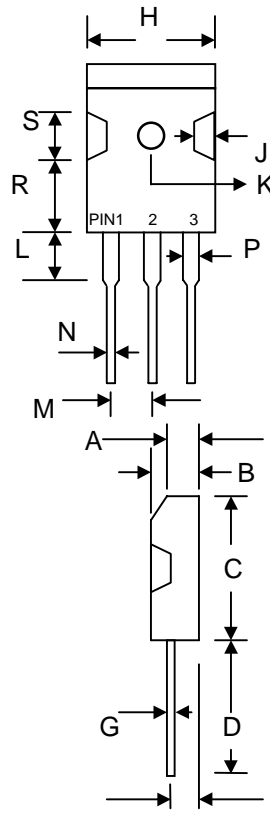
## 20A SCHOTTKY BARRIER RECTIFIER

### Features

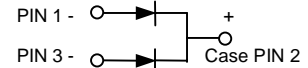
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: As Marked on Body
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



TO-3P		
Dim	Min	Max
A	3.20	3.50
B	4.59	5.16
C	20.80	21.30
D	19.70	20.20
E	2.10	2.40
G	0.51	0.76
H	15.90	16.40
J	1.70	2.70
K	3.10 Ø	3.30 Ø
L	3.50	4.51
M	5.20	5.70
N	1.12	1.22
P	2.90	3.30
R	11.70	12.80
S	4.30 Typical	
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 2030PT	SB 2035PT	SB 2040PT	SB 2045PT	SB 2050PT	SB 2060PT	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	35	40	45	50	60	V
Working Peak Reverse Voltage	V <sub>RRM</sub>							
DC Blocking Voltage	V <sub>R</sub>							
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	24.5	28	31.5	35	42	V
Average Rectified Output Current @T <sub>C</sub> = 100°C	I <sub>O</sub>	20						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	250						A
Forward Voltage @I <sub>F</sub> = 10A	V <sub>FM</sub>	0.55				0.75		V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	1.0						mA
At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C		50						
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	1100						pF
Typical Thermal Resistance Junction to Case (Note 2)	R <sub>θJC</sub>	2.5						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.

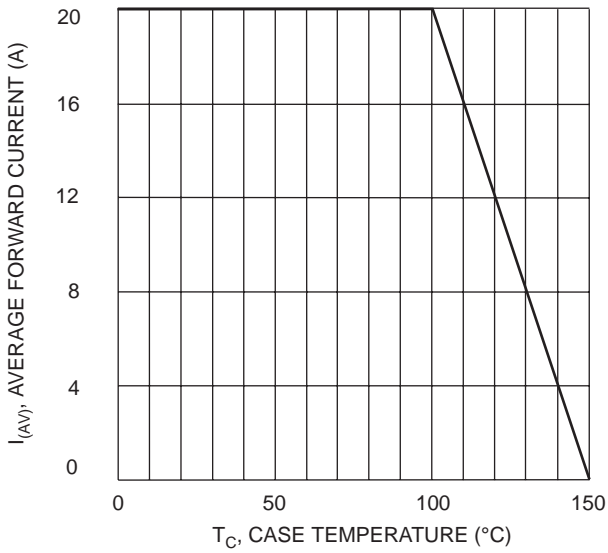


Fig. 1 Forward Current Derating Curve

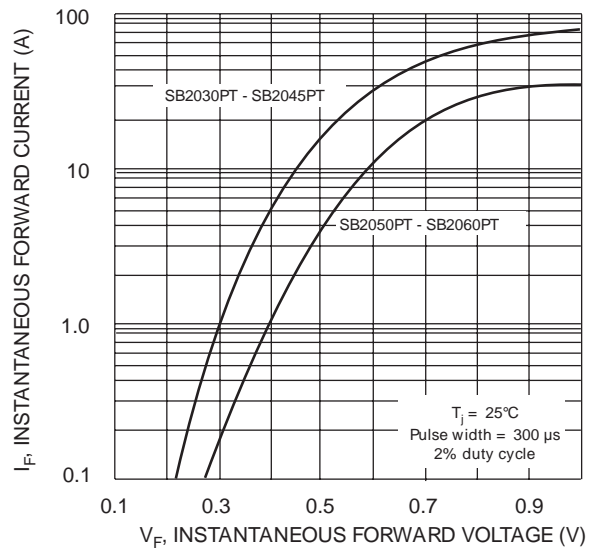


Fig. 2 Typical Forward Characteristics per Element

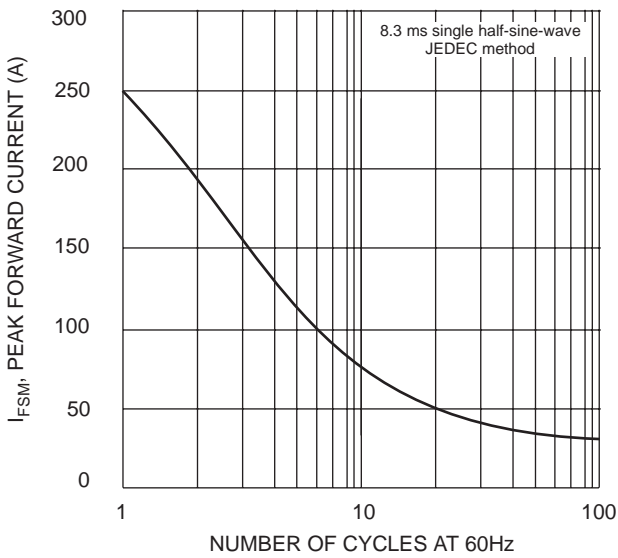


Fig. 3 Maximum Non-Repetitive Surge Current

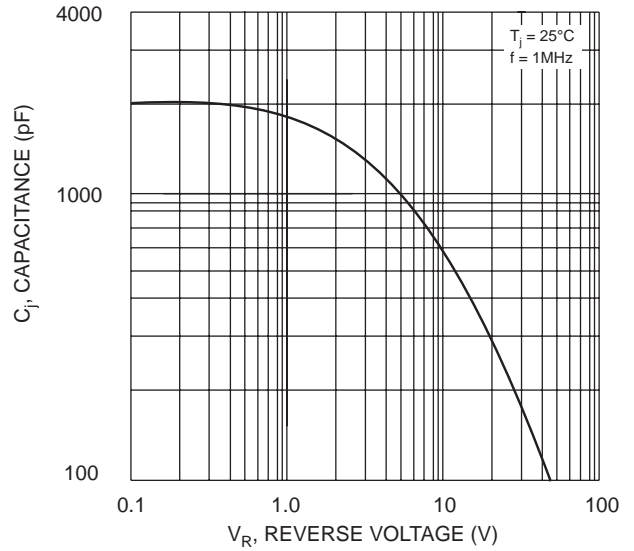


Fig. 4 Typical Junction Capacitance per Element

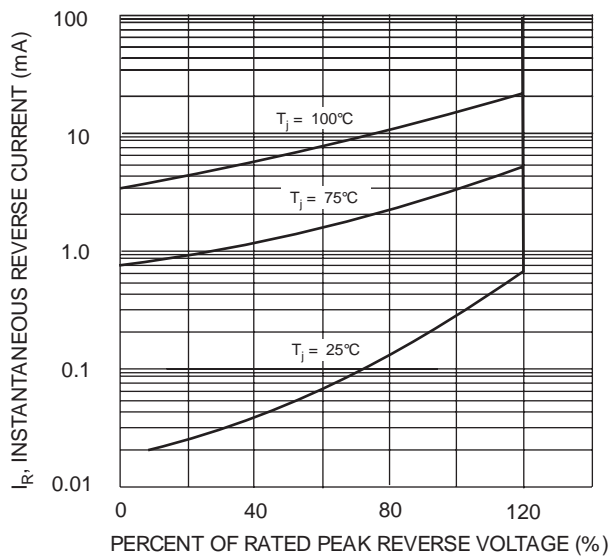


Fig. 5 Typical Reverse Characteristics per Element

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB2030PT	TO-3P	30 Units/Tube
SB2035PT	TO-3P	30 Units/Tube
SB2040PT	TO-3P	30 Units/Tube
SB2045PT	TO-3P	30 Units/Tube
SB2050PT	TO-3P	30 Units/Tube
SB2060PT	TO-3P	30 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.*