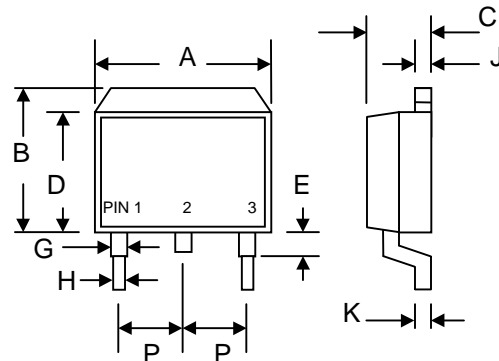


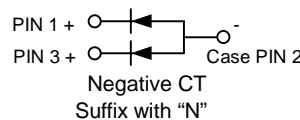
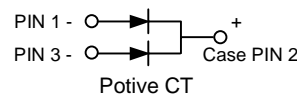
### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Standard Packaging: 24mm Tape (EIA-481)



D <sup>2</sup> PAK/TO-263		
Dim	Min	Max
A	9.8	10.4
B	9.6	10.6
C	4.4	4.8
D	8.5	9.1
E	—	0.7
G	1.0	1.4
H	—	0.9
J	1.2	1.4
K	0.3	0.7
P	2.35	2.75
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 1020DC	SB 1030DC	SB 1040DC	SB 1050DC	SB 1060DC	SB 1080DC	SB 10100DC	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>VRM</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> = 100°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>	600							pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	60							K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-50 to +150							°C

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

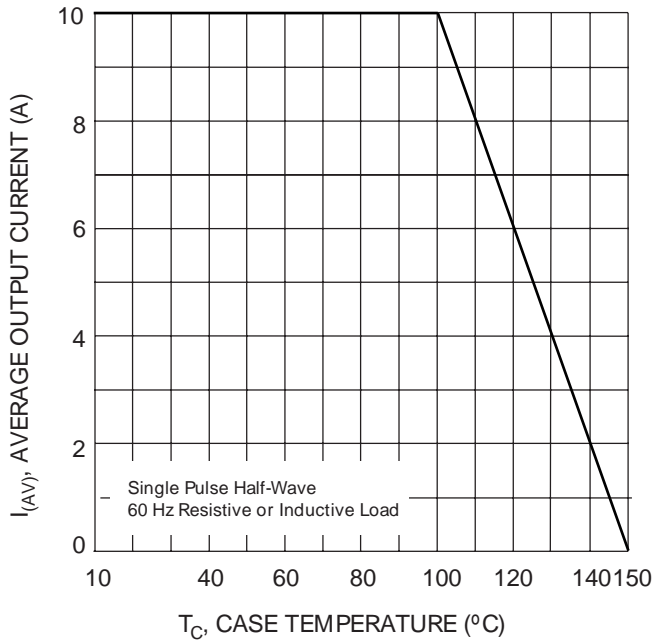


Fig. 1 Forward Current Derating Curve

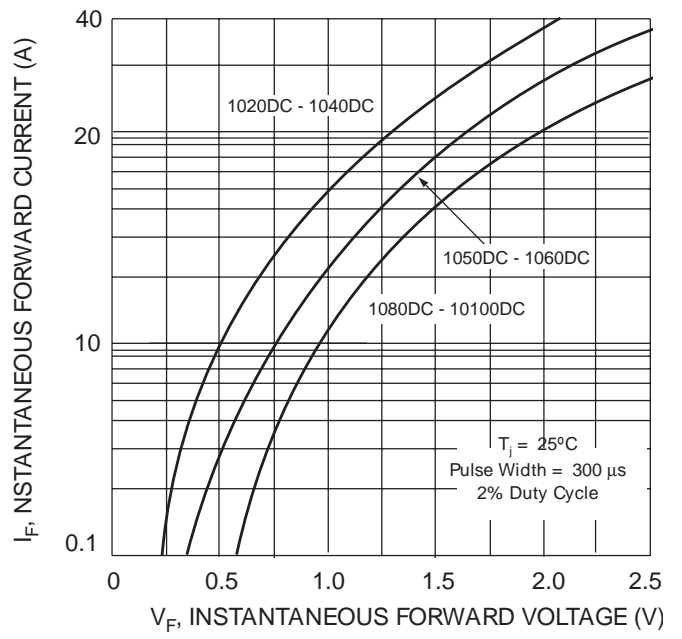


Fig. 2 Typical Forward Characteristics

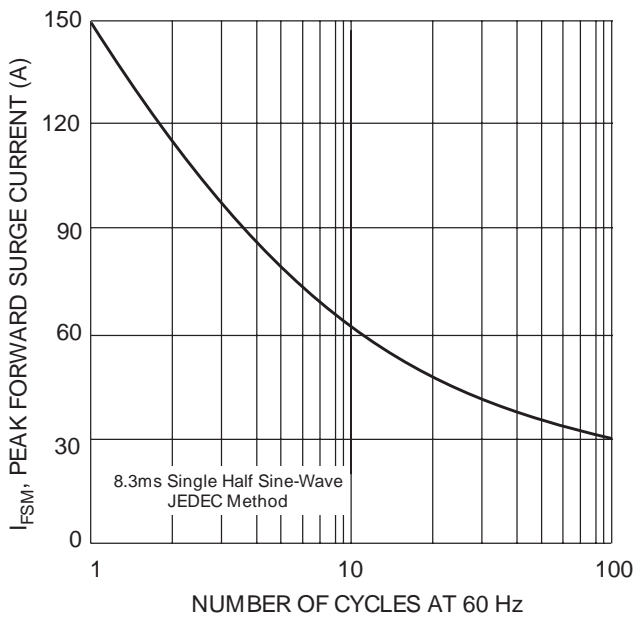


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

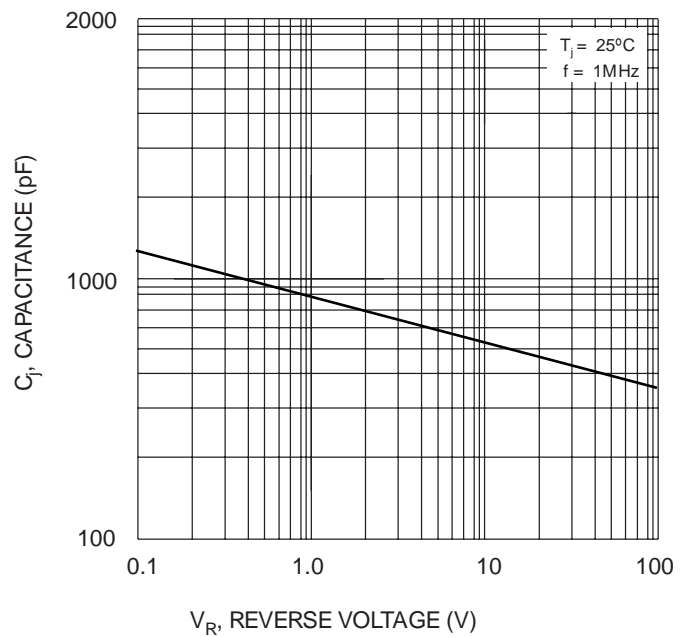


Fig. 4 Typical Junction Capacitance

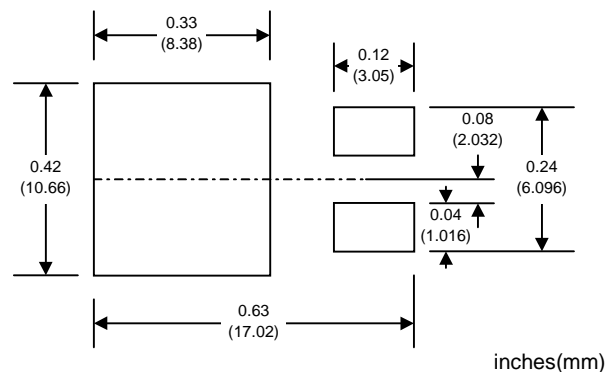
## ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
SB1020DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
SB1030DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
SB1040DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
SB1050DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
SB1060DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
SB1080DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
SB10100DC-T3	D <sup>2</sup> PAK	800/Tape & Reel

◆T3 suffix refers to a 13" reel.

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

## RECOMMENDED FOOTPRINT



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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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**Email:** sales@wontop.com

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

*We power your everyday.*