



# B40C1000 – B500C1000



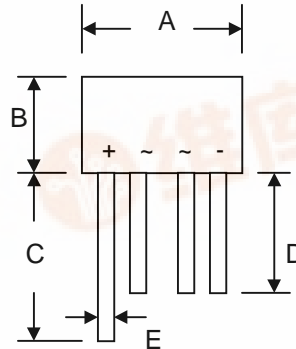
## 1.0A SINGLE-PHASE BRIDGE RECTIFIER

### Features

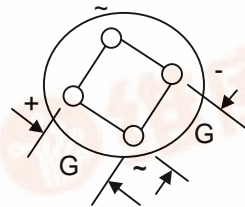
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Excellent Case Dielectric Strength

### Mechanical Data

- Case: WOB, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 1.1 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



WOB		
Dim	Min	Max
A	8.60	9.10
B	5.0	5.50
C	27.9	—
D	25.4	—
E	0.71	0.81
G	4.60	5.60
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	B40C 1000	B80C 1000	B125C 1000	B250C 1000	B380C 1000	B500C 1000	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	200	300	600	900	1200	V
Working Peak Reverse Voltage	V <sub>RWM</sub>							
DC Blocking Voltage	V <sub>R</sub>							
Input Voltage Recommended	V <sub>R(RMS)</sub>	40	80	125	250	380	500	V
Average Rectified Output Current (Note 1) @T <sub>A</sub> = 50°C	I <sub>O</sub>	1.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	45						A
Forward Voltage (per element) @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.0						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>	5.0 500						μA
Operating Temperature Range	T <sub>J</sub>	-55 to +125						°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.



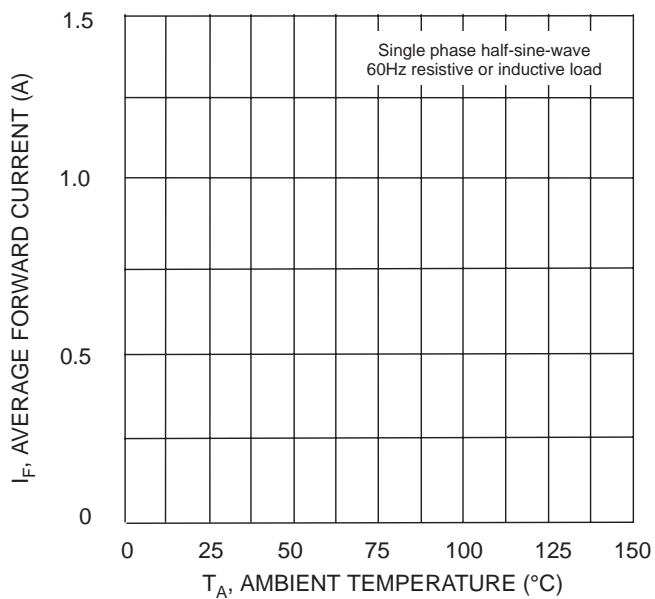


Fig. 1 Forward Current Derating Curve

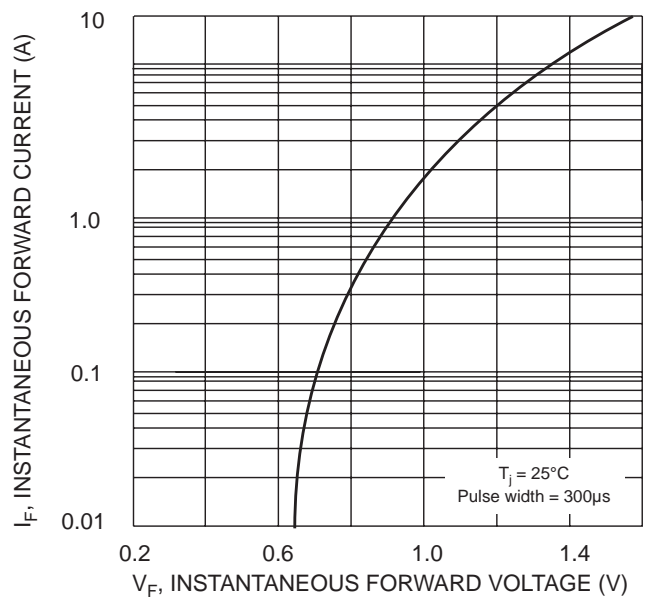


Fig. 2 Typical Forward Characteristics, per element

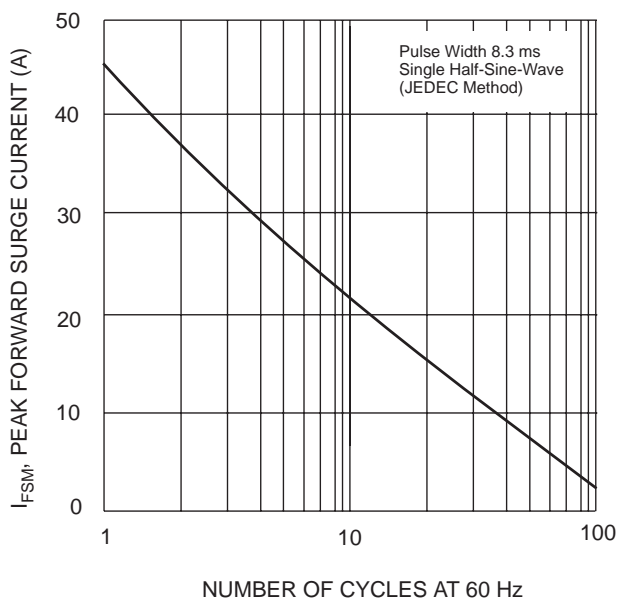


Fig. 3 Max Non-Repetitive Surge Current

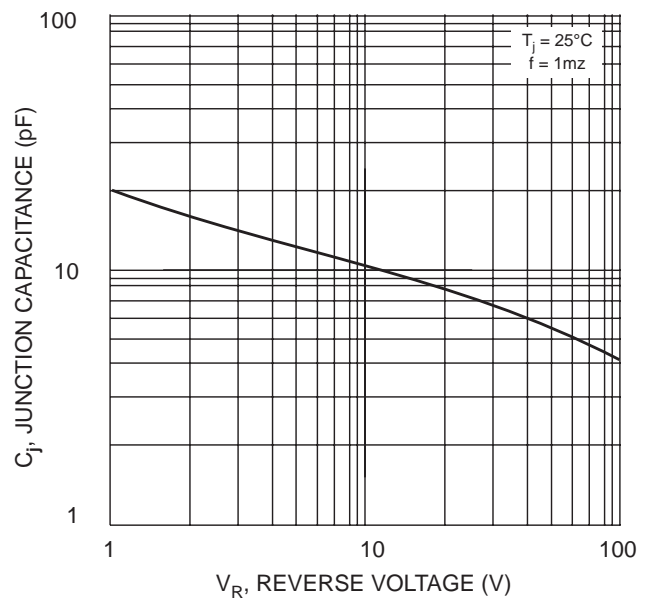
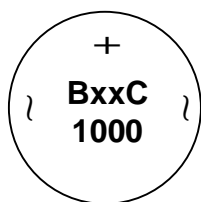


Fig. 4 Typical Junction Capacitance

## MARKING INFORMATION



BxxC1000 = Device Number  
xx = 40, 80, 125, 250, 380, 500  
Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK

Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
260 x 190 x 80	1,000	400 x 273 x 415	10,000	14.0

**Note:** 1. Paper box, white or brown color.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
B40C1000	Round Bridge	1000 Units/Box
B80C1000	Round Bridge	1000 Units/Box
B125C1000	Round Bridge	1000 Units/Box
B250C1000	Round Bridge	1000 Units/Box
B380C1000	Round Bridge	1000 Units/Box
B500C1000	Round Bridge	1000 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add “-LF” suffix to part number above. For example, B40C1000-LF.**

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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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