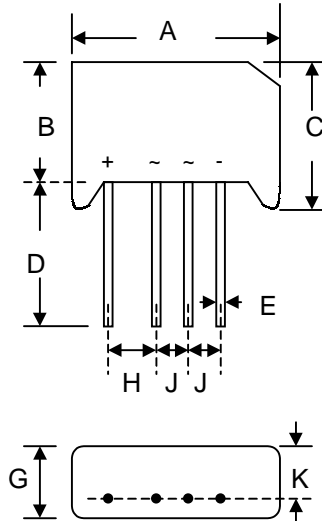


## 5.0A SINGLE-PHASE BRIDGE RECTIFIER

### Features

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



RS-5		
Dim	Min	Max
A	39.40	40.10
B	20.20	21.00
C	21.00	21.70
D	25.40	—
E	0.97 Ø	1.07 Ø
G	6.20	6.70
H	9.80	10.20
J	7.20	7.60
K	4.60	5.00
All Dimensions in mm		

### Mechanical Data

- Case: RS-5, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 9.8 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

### 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	B40C	B80C	B125C	B250C	B380C	B500C	Unit
		5000/3300	5000/3300	5000/3300	5000/3300	5000/3300	5000/3300	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	200	300	600	900	1000	V
Recommend Input Voltage	$V_{RMS}$	40	80	125	250	380	500	V
Average Rectified Output Current @ $T_A = 45^\circ\text{C}$ (Note 1)	$I_O$	5.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	250						A
Repetitive Peak Forward Surge Current	$I_{FRM}$	30						A
Forward Voltage per leg @ $I_F = 5.0\text{A}$	$V_{FM}$	1.0						V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	$I_R$	10 6.0						$\mu\text{A}$ mA
Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note 2)	$I^2t$	110						$\text{A}^2\text{s}$
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JA}$	2.6						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150						$^\circ\text{C}$

Note: 1. Mounted on 200mm<sup>2</sup> metal chassis.  
2. Non-repetitive for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .

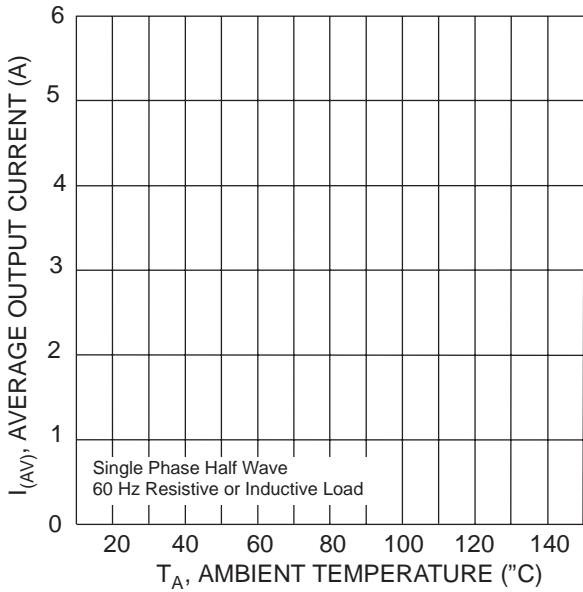


Fig. 1 Forward Current Derating Curve

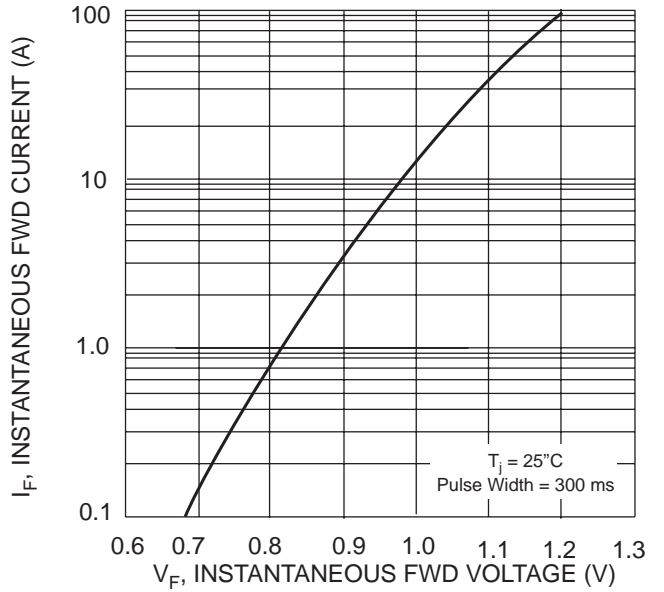


Fig. 2 Typical Forward Characteristics, per element

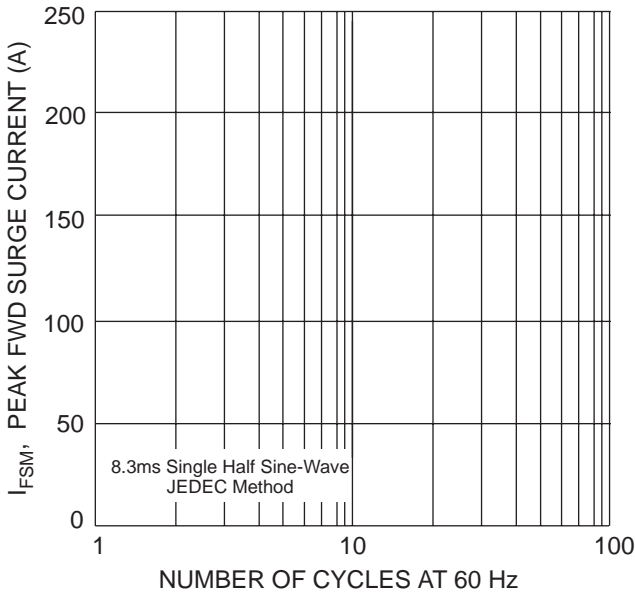


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

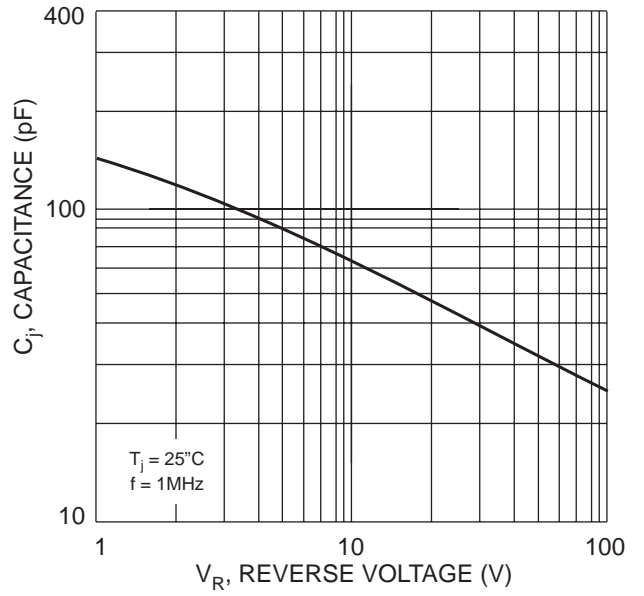


Fig. 4 Typical Junction Capacitance Per Element

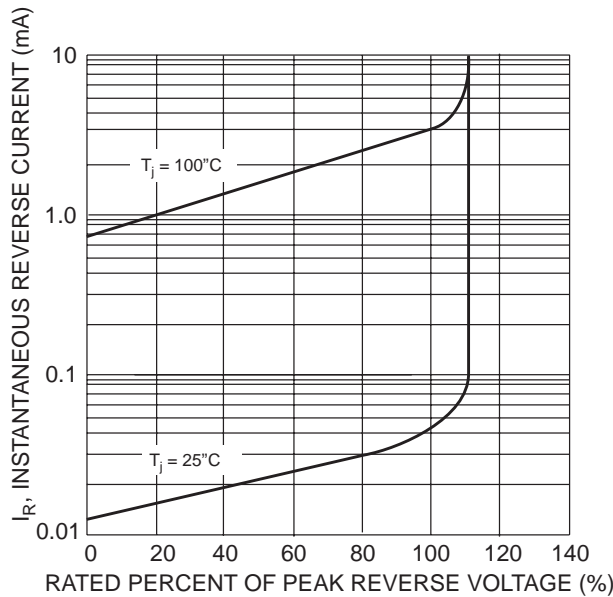
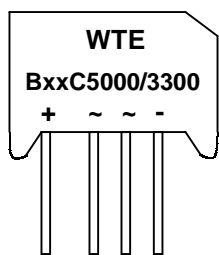


Fig. 5 Typical Reverse Characteristics

## MARKING INFORMATION



WTE = Manufacturer's Logo  
 BxxC5000/3300 = 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)
230 x 230 x 56	200	500 x 255 x 275	2,000	23.0

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

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
B40C5000/3300	SIL Bridge	200 Units/Box
B80C5000/3300	SIL Bridge	200 Units/Box
B125C5000/3300	SIL Bridge	200 Units/Box
B250C5000/3300	SIL Bridge	200 Units/Box
B380C5000/3300	SIL Bridge	200 Units/Box
B500C5000/3300	SIL Bridge	200 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, B40C5000/3300-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.

**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>

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