


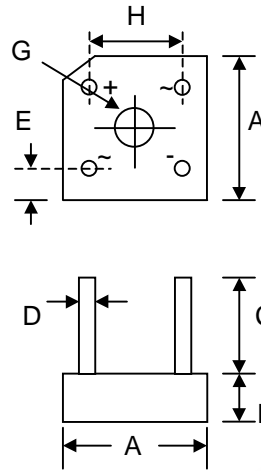
## 3.0A GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

### Features

- Glass Passivated Die Construction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has UL Flammability 94V-0
-  Recognized File # E157705

### Mechanical Data

- Case: KBPC-3, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 3.8 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 10 cm·kg (8.8 in·lbs) Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



| KBPC-3               |                   |       |
|----------------------|-------------------|-------|
| Dim                  | Min               | Max   |
| A                    | 14.73             | 15.75 |
| B                    | 5.84              | 6.86  |
| C                    | 19.00             | —     |
| D                    | 0.76 Ø Typical    |       |
| E                    | 1.70              | 2.72  |
| G                    | Hole for #6 screw |       |
|                      | 3.60              | 4.00  |
| H                    | 10.30             | 11.30 |
| All Dimensions in mm |                   |       |

### 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                          | KBPC 300G   | KBPC 301G | KBPC 302G | KBPC 304G | KBPC 306G | KBPC 308G | KBPC 310G | Unit                 |
|---|---------------------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50          | 100       | 200       | 400       | 600       | 800       | 1000      | V                    |
| RMS Reverse Voltage   | $V_{R(RMS)}$                    | 35          | 70        | 140       | 280       | 420       | 560       | 700       | V                    |
| Average Rectified Output Current (Note 1) @ $T_A = 50^\circ\text{C}$  | $I_O$                           | 3.0         |           |           |           |           |           |           | A                    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | $I_{FSM}$                       | 60          |           |           |           |           |           |           | A                    |
| Forward Voltage per leg @ $I_F = 1.5\text{A}$   | $V_{FM}$                        | 1.0         |           |           |           |           |           |           | V                    |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$           | $I_R$                           | 5.0<br>500  |           |           |           |           |           |           | $\mu\text{A}$        |
| $I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note 2)  | $I^2t$                          | 15          |           |           |           |           |           |           | $\text{A}^2\text{s}$ |
| Typical Junction Capacitance (Note 3)   | $C_j$                           | 21          |           |           |           |           |           |           | pF                   |
| Typical Thermal Resistance per leg (Note 1)   | $R_{\theta JC}$                 | 8.0         |           |           |           |           |           |           | $^\circ\text{C/W}$   |
| Operating and Storage Temperature Range   | $T_j, T_{STG}$                  | -65 to +150 |           |           |           |           |           |           | $^\circ\text{C}$     |

Note: 1. Mounted on 105 x 105 x 3.0mm Al. plate.  
2. Non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .  
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

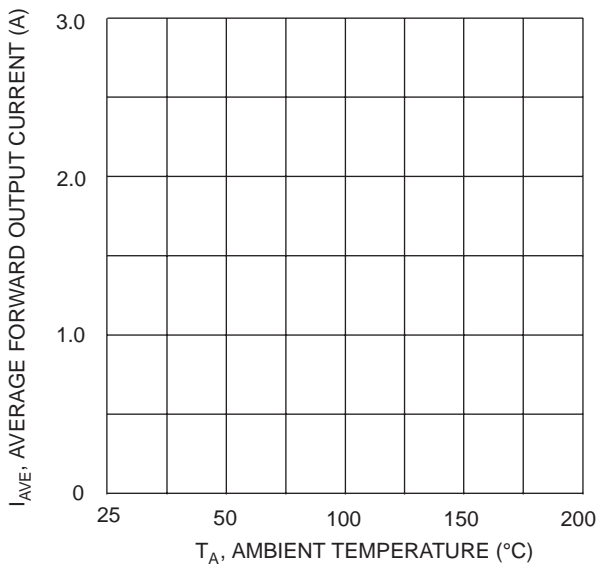


Fig. 1 Forward Current Derating Curve

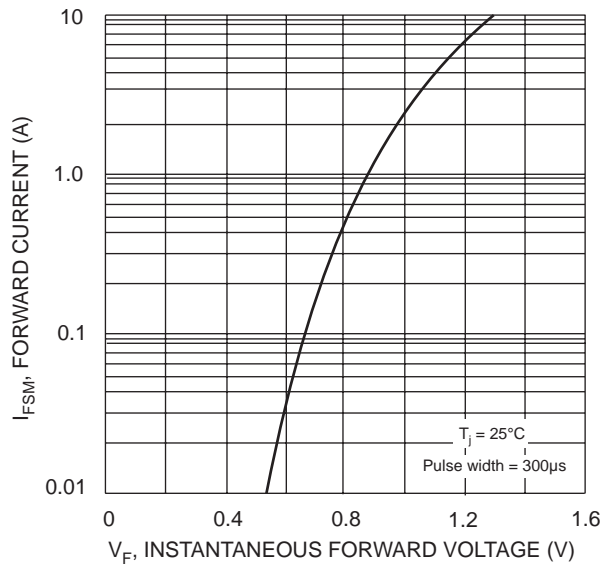


Fig. 2 Typical Forward Characteristics, per element

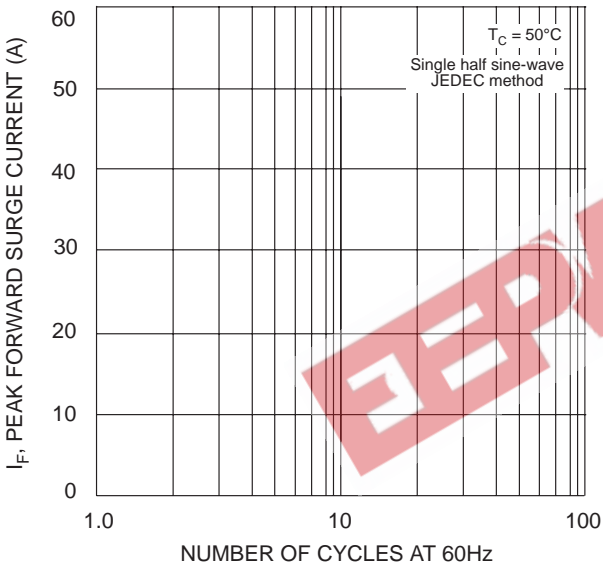


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

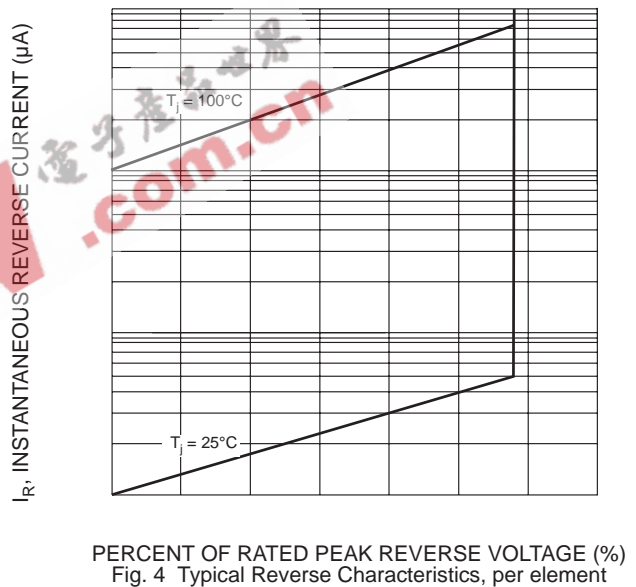
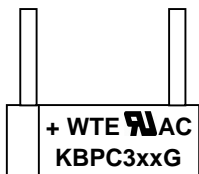


Fig. 4 Typical Reverse Characteristics, per element

## MARKING INFORMATION



WTE = Manufacturer's Logo  
 KBPC3xxG = Device Number  
 xx = 00, 01, 02, 04, 06, 08 or 10  
 Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK

| Inner Box Size<br>L x W x H (mm) | Quantity<br>(PCS) | Carton Size<br>L x W x H (mm) | Quantity<br>(PCS) | Approx. Gross Weight<br>(KG) |
|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 198 x 198 x 50                   | 200               | 425 x 215 x 280               | 2,000             | 8.0                          |

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

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## ORDERING INFORMATION

| Product No. | Package Type  | Shipping Quantity |
|-------------|---------------|-------------------|
| KBPC300G    | Square Bridge | 200 Units/Box     |
| KBPC301G    | Square Bridge | 200 Units/Box     |
| KBPC302G    | Square Bridge | 200 Units/Box     |
| KBPC304G    | Square Bridge | 200 Units/Box     |
| KBPC306G    | Square Bridge | 200 Units/Box     |
| KBPC308G    | Square Bridge | 200 Units/Box     |
| KBPC310G    | Square 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, KBPC300G-LF.**

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**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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