

# KBPC15, 25, 35P/W SERIES

## 15, 25, 35A HIGH CURRENT BRIDGE RECTIFIER

### Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E157705

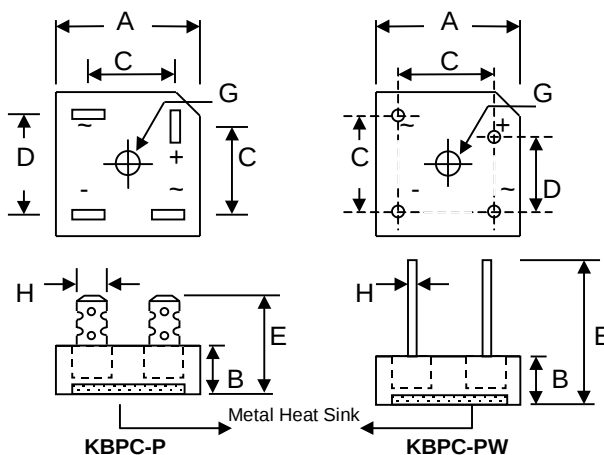
### Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC-P 24 grams (approx.)  
KBPC-PW 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads

No Suffix Designates Faston Terminals

\*All Models are Available on B(Height)=7.9mm Max. Epoxy Case



|                     | KBPC-P                            |       | KBPC-PW |       |
|---------------------|-----------------------------------|-------|---------|-------|
| Dim                 | Min                               | Max   | Min     | Max   |
| A                   | 28.40                             | 28.70 | 28.40   | 28.70 |
| B                   | 10.97                             | 11.23 | 10.97   | 11.23 |
| C                   | 15.70                             | 16.70 | 17.10   | 19.10 |
| D                   | 17.50                             | 18.50 | 10.90   | 11.90 |
| E                   | 22.86                             | 25.40 | 30.50   | —     |
| G                   | Hole for #10 screw, 5.08Ø Nominal |       |         |       |
| H                   | 6.35 Typical                      |       | 0.97Ø   | 1.07Ø |
| All Dimension 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%.

| Characteristics                                                                                                          | Symbol              | -00P/W            | -01P/W | -02P/W | -04P/W | -06P/W | -08P/W | -10P/W | Unit             |
|--------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------|--------|--------|--------|--------|--------|--------|------------------|
| Peak Repetitive Reverse Voltage                                                                                          | V <sub>RRM</sub>    | 50                | 100    | 200    | 400    | 600    | 800    | 1000   | V                |
| Working Peak Reverse Voltage                                                                                             | V <sub>RWM</sub>    |                   |        |        |        |        |        |        |                  |
| DC Blocking Voltage                                                                                                      | V <sub>R</sub>      |                   |        |        |        |        |        |        |                  |
| RMS Reverse Voltage                                                                                                      | V <sub>R(RMS)</sub> | 35                | 70     | 140    | 280    | 420    | 560    | 700    | V                |
| Average Rectifier Output Current<br>@T <sub>C</sub> = 60°C                                                               | I <sub>O</sub>      | 15<br>25<br>35    |        |        |        |        |        |        | A                |
| Non-Repetitive Peak Forward Surge<br>Current 8.3ms single half sine-wave<br>Superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>    | 300<br>300<br>400 |        |        |        |        |        |        | A                |
| Forward Voltage Drop<br>(per element)                                                                                    | V <sub>FM</sub>     | 1.1               |        |        |        |        |        |        | V                |
| Peak Reverse Current<br>At Rated DC Blocking Voltage                                                                     | I <sub>RM</sub>     | 10<br>0.5         |        |        |        |        |        |        | µA<br>mA         |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms)<br>(Note 1)                                                               | I <sup>2</sup> t    | 373<br>373<br>664 |        |        |        |        |        |        | A <sup>2</sup> s |

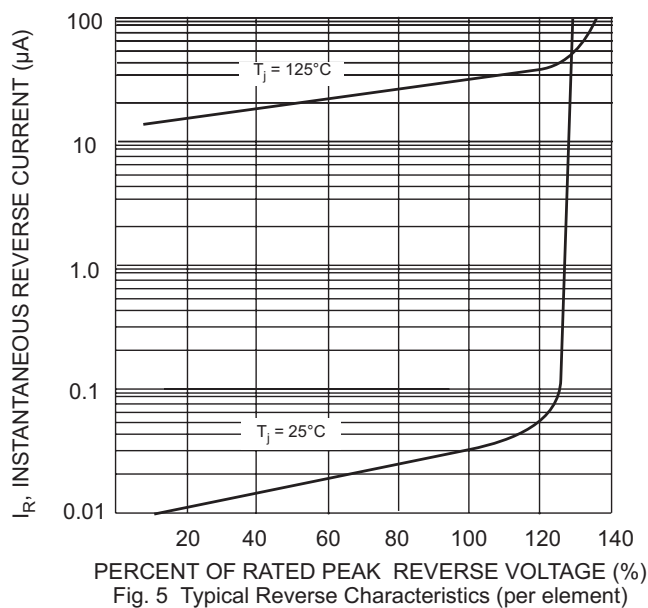
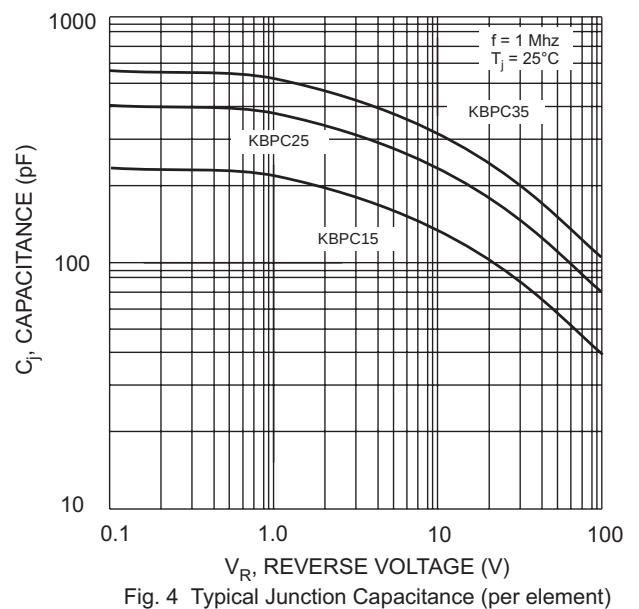
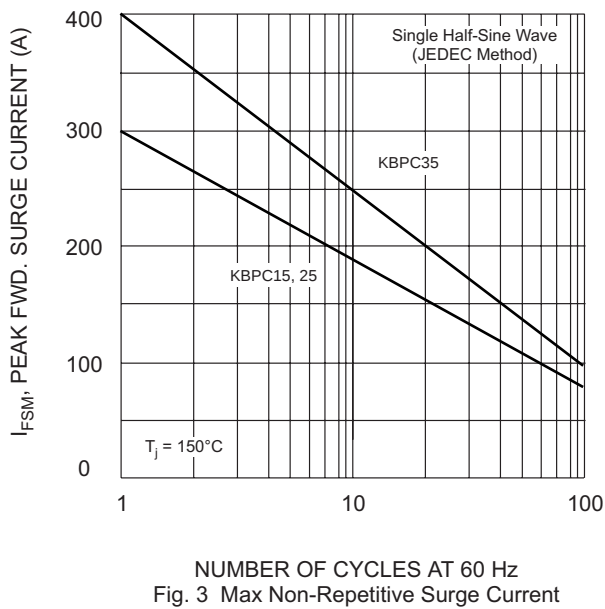
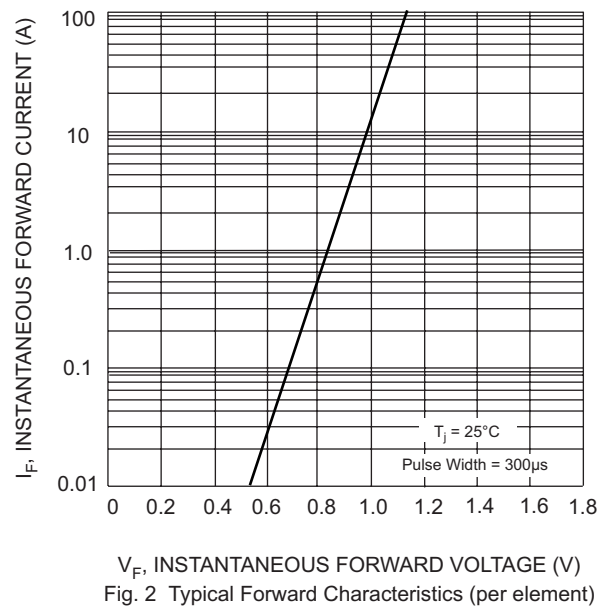
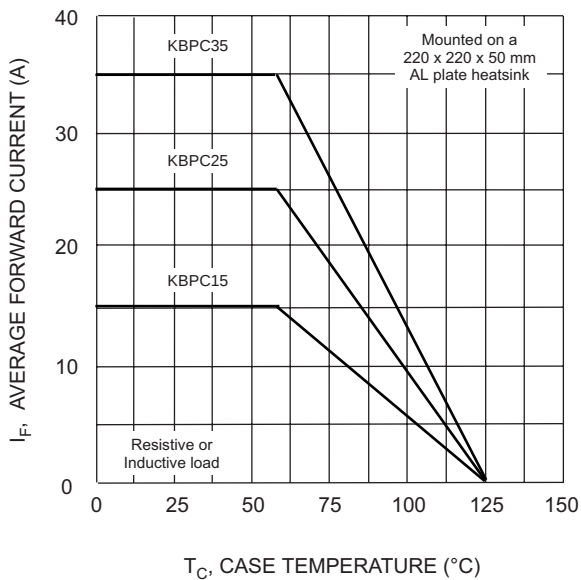
---

**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

---

|                                                                       |                            |                                   |                   |     |
|-----------------------------------------------------------------------|----------------------------|-----------------------------------|-------------------|-----|
| Typical Junction Capacitance<br>(per element) (Note 2)                | KBPC15<br>KBPC25<br>KBPC35 | C <sub>j</sub>                    | 200<br>300<br>400 | pF  |
| Typical Thermal Resistance Junction<br>to Case (per element) (Note 3) | KBPC15<br>KBPC25<br>KBPC35 | R <sub>θJC</sub>                  | 6.3<br>3.8<br>3.8 | K/W |
| RMS Isolation Voltage from Case to Lead                               |                            | V <sub>ISO</sub>                  | 2500              | V   |
| Operating and Storage Temperature Range                               |                            | T <sub>j</sub> , T <sub>STG</sub> | -65 to +125       | °C  |

Note: 1. Measured at non-repetitive, for t > 1ms and < 8.3ms.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Thermal resistance junction to case mounted on heatsink.



## ORDERING INFORMATION

| Product No. | Package Type  | Shipping Quantity |
|-------------|---------------|-------------------|
| KBPCxx00P   | Square Bridge | 50 Units/Box      |
| KBPCxx00PW  | Square Bridge | 50 Units/Box      |
| KBPCxx01P   | Square Bridge | 50 Units/Box      |
| KBPCxx01PW  | Square Bridge | 50 Units/Box      |
| KBPCxx02P   | Square Bridge | 50 Units/Box      |
| KBPCxx02PW  | Square Bridge | 50 Units/Box      |
| KBPCxx04P   | Square Bridge | 50 Units/Box      |
| KBPCxx04PW  | Square Bridge | 50 Units/Box      |
| KBPCxx06P   | Square Bridge | 50 Units/Box      |
| KBPCxx06PW  | Square Bridge | 50 Units/Box      |
| KBPCxx08P   | Square Bridge | 50 Units/Box      |
| KBPCxx08PW  | Square Bridge | 50 Units/Box      |
| KBPCxx10P   | Square Bridge | 50 Units/Box      |
| KBPCxx10PW  | Square Bridge | 50 Units/Box      |

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.*