

# KBPC15, 25, 35/W SERIES

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

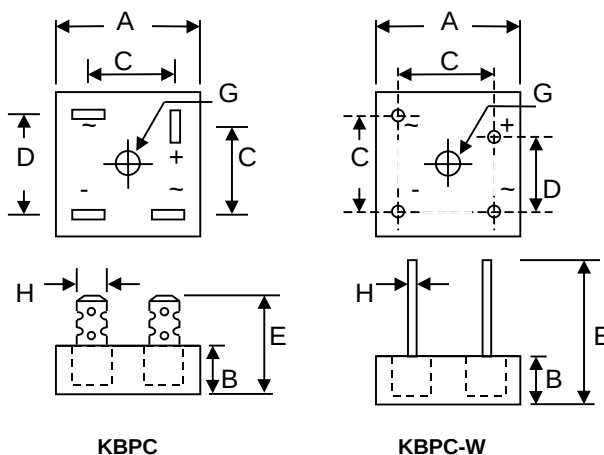
### Features

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

### Mechanical Data

- Case: Metal Case with Electrically Isolated Epoxy
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC 31.6 grams (approx.)  
KBPC-W 28.5 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads  
 No Suffix Designates Faston Terminals



|                     | KBPC                              |       | KBPC-W |       |
|---------------------|-----------------------------------|-------|--------|-------|
| 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              | -00/W             | -01/W | -02/W | -04/W | -06/W | -08/W | -10/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>400<br>400 |       |       |       |       |       |       | A                |
| Forward Voltage Drop<br>(per element)                                                                                    | V <sub>FM</sub>     | 1.2               |       |       |       |       |       |       | V                |
| Peak Reverse Current<br>At Rated DC Blocking Voltage                                                                     | I <sub>RM</sub>     | 10<br>1.0         |       |       |       |       |       |       | 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 |

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

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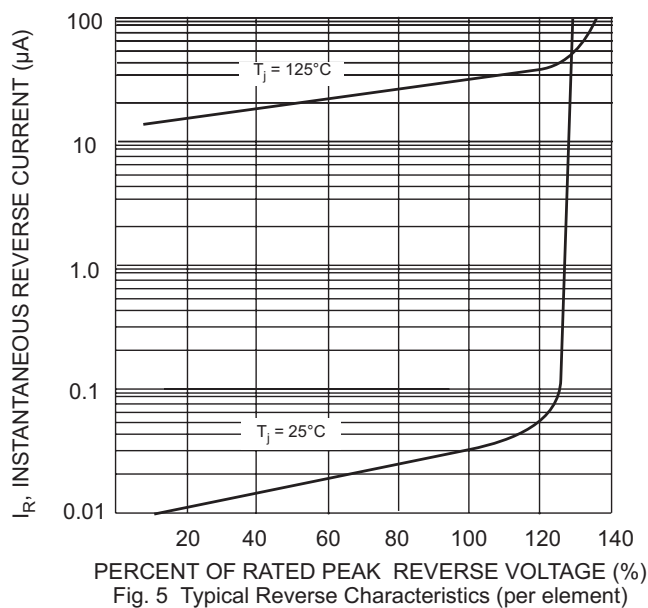
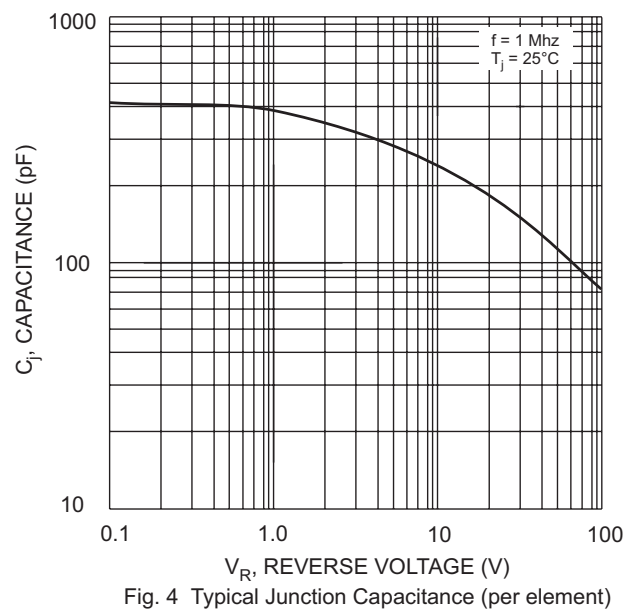
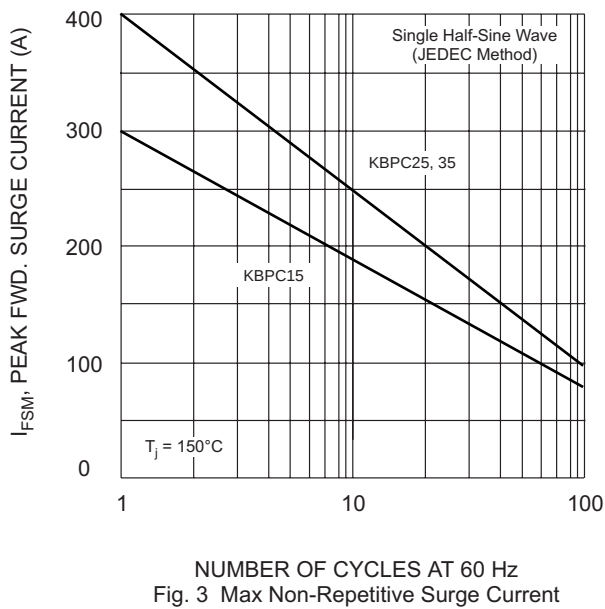
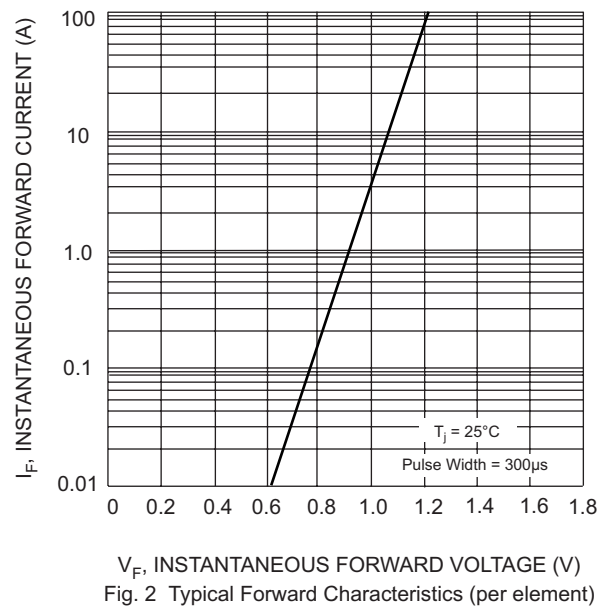
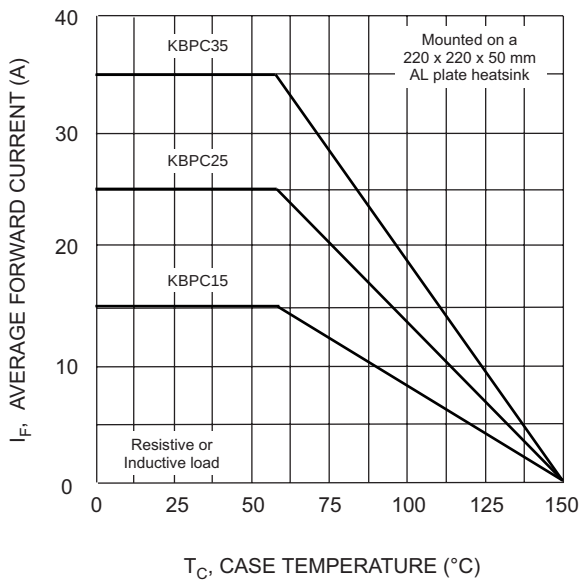
|                                                                       |                                   |                   |     |
|-----------------------------------------------------------------------|-----------------------------------|-------------------|-----|
| Typical Junction Capacitance (per element)<br>(Note 2)                | C <sub>j</sub>                    | 300               | pF  |
| Typical Thermal Resistance Junction<br>to Case (per element) (Note 3) | R <sub>θJC</sub>                  | 6.3<br>3.8<br>2.7 | 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 +150       | °C  |

**\* Glass passivated forms are available upon request.**

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 |
|-------------|---------------|-------------------|
| KBPCxx00    | Square Bridge | 50 Units/Box      |
| KBPCxx00W   | Square Bridge | 50 Units/Box      |
| KBPCxx01    | Square Bridge | 50 Units/Box      |
| KBPCxx01W   | Square Bridge | 50 Units/Box      |
| KBPCxx02    | Square Bridge | 50 Units/Box      |
| KBPCxx02W   | Square Bridge | 50 Units/Box      |
| KBPCxx04    | Square Bridge | 50 Units/Box      |
| KBPCxx04W   | Square Bridge | 50 Units/Box      |
| KBPCxx06    | Square Bridge | 50 Units/Box      |
| KBPCxx06W   | Square Bridge | 50 Units/Box      |
| KBPCxx08    | Square Bridge | 50 Units/Box      |
| KBPCxx08W   | Square Bridge | 50 Units/Box      |
| KBPCxx10    | Square Bridge | 50 Units/Box      |
| KBPCxx10W   | Square Bridge | 50 Units/Box      |

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

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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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