

# KBPC15, 25, 35/W SERIES

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

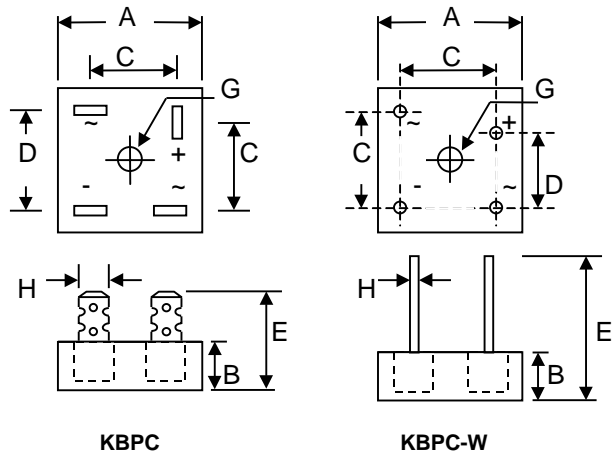
### Features

- 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



| Dim                 | KBPC                              |       | KBPC-W      |       |
|---------------------|-----------------------------------|-------|-------------|-------|
|                     | 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>    |       |       |       |                   |       |       |       | V                |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>    | 50    | 100   | 200   | 400               | 600   | 800   | 1000  |                  |
| 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 Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>    |       |       |       | 300<br>400<br>400 |       |       |       | A                |
| Forward Voltage Drop (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** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

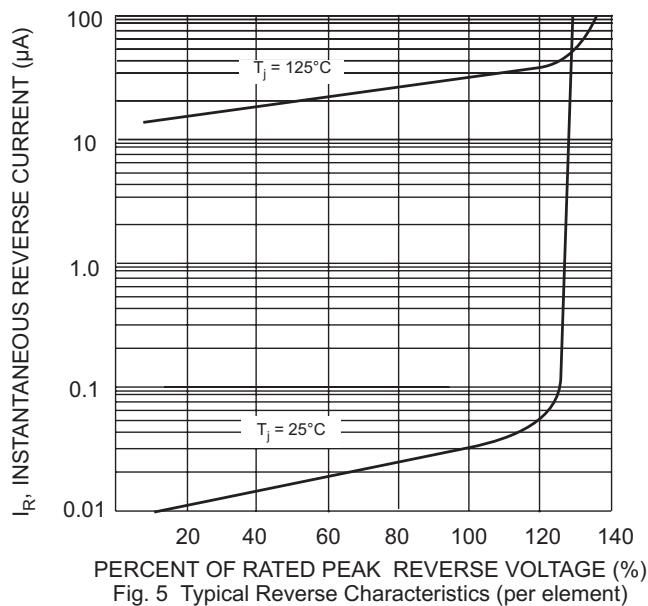
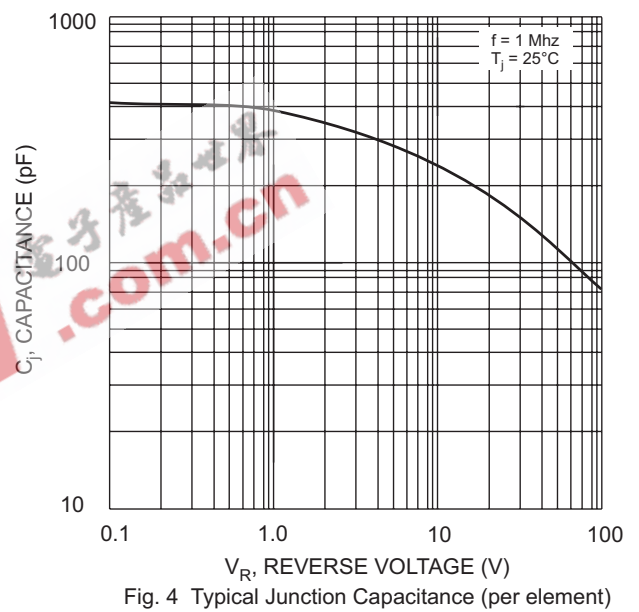
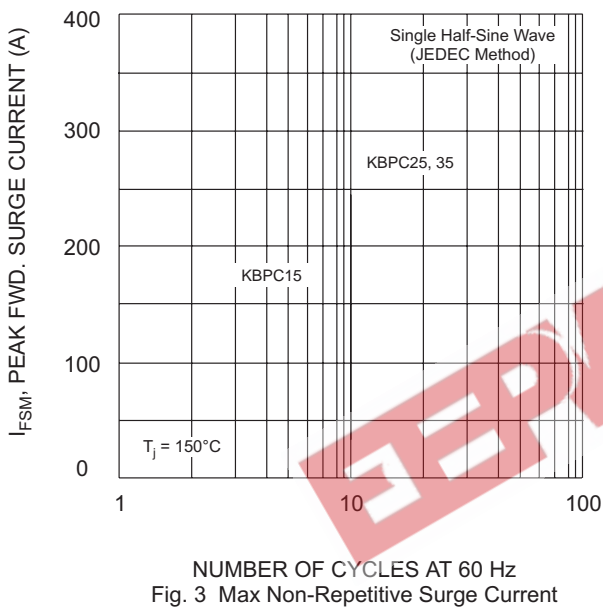
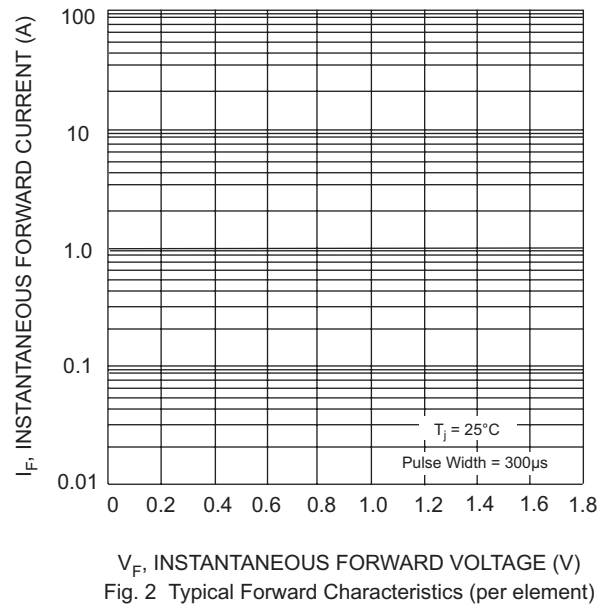
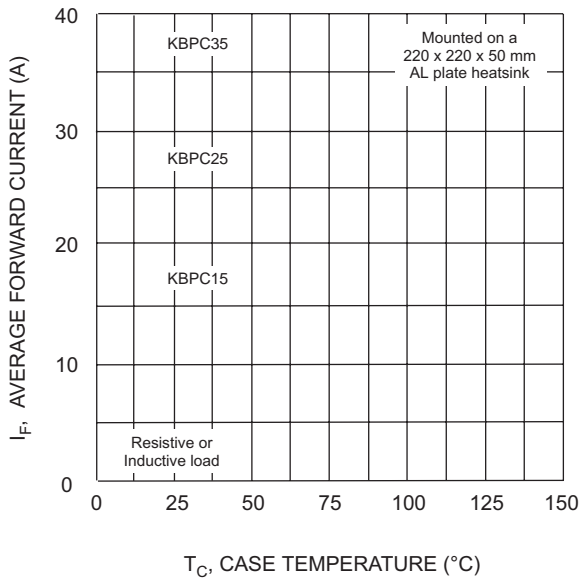
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|   |                 |                   |                    |
|---|-----------------|-------------------|--------------------|
| Typical Junction Capacitance (per element)<br>(Note 2)                | $C_j$           | 300               | pF                 |
| Typical Thermal Resistance Junction<br>to Case (per element) (Note 3) | $R_{\theta JC}$ | 6.3<br>3.8<br>2.7 | K/W                |
| RMS Isolation Voltage from Case to Lead                               | $V_{ISO}$       | 2500              | V                  |
| Operating and Storage Temperature Range                               | $T_j, T_{STG}$  | -65 to +150       | $^{\circ}\text{C}$ |

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

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

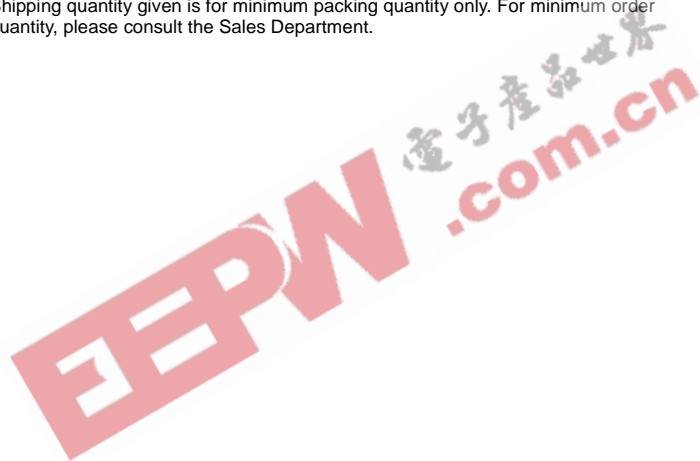
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## ORDERING INFORMATION

| 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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