

# KBPC15, 25, 35GS SERIES

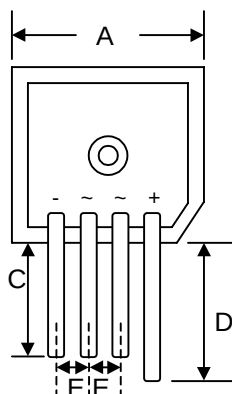
## 15, 25, 35A GLASS PASSIVATED IN-LINE BRIDGE RECTIFIER

### Features

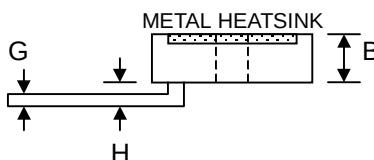
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space

### 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: As Marked on Body
- Weight: 30 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| KBPC-S               |                |       |
|----------------------|----------------|-------|
| Dim                  | Min            | Max   |
| A                    | 28.40          | 28.70 |
| B                    | 10.97          | 11.23 |
| C                    | 13.90          | —     |
| D                    | 19.10          | —     |
| E                    | 5.10           | —     |
| G                    | 1.20 Ø Typical |       |
| H                    | 3.05           | 3.60  |
| All Dimensions in mm |                |       |



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

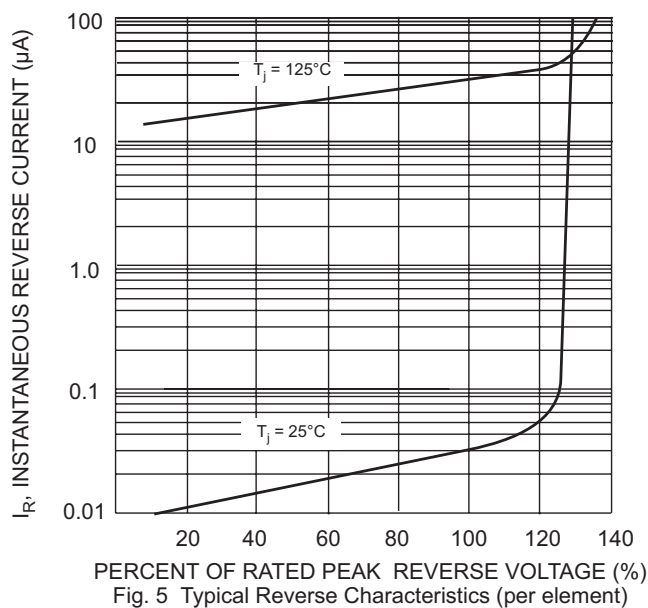
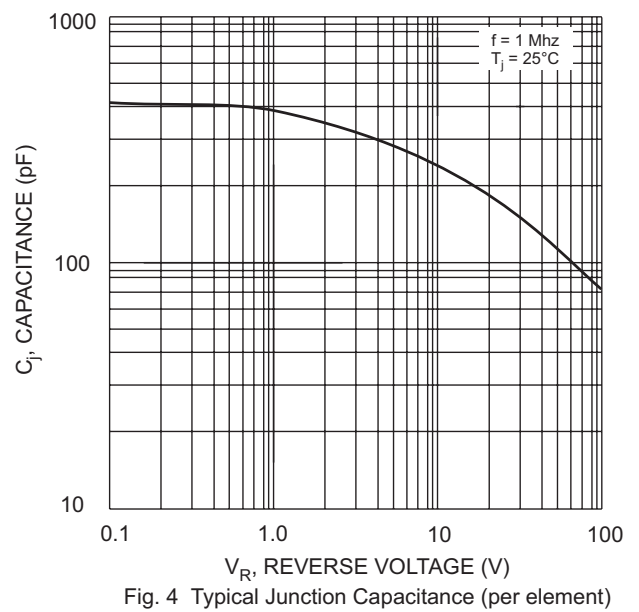
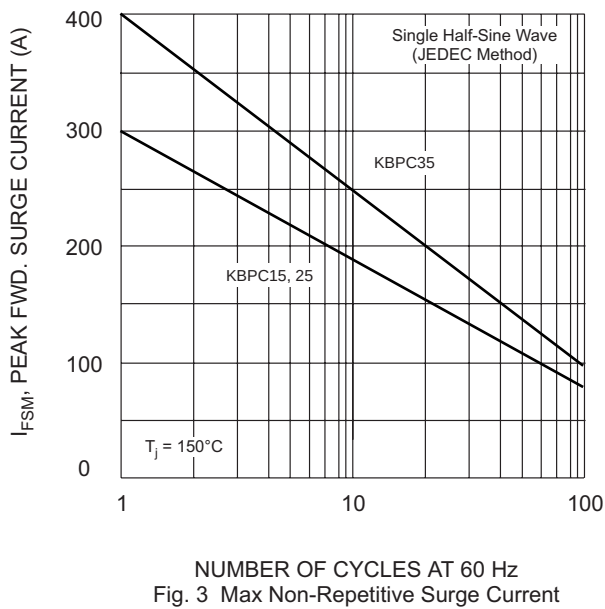
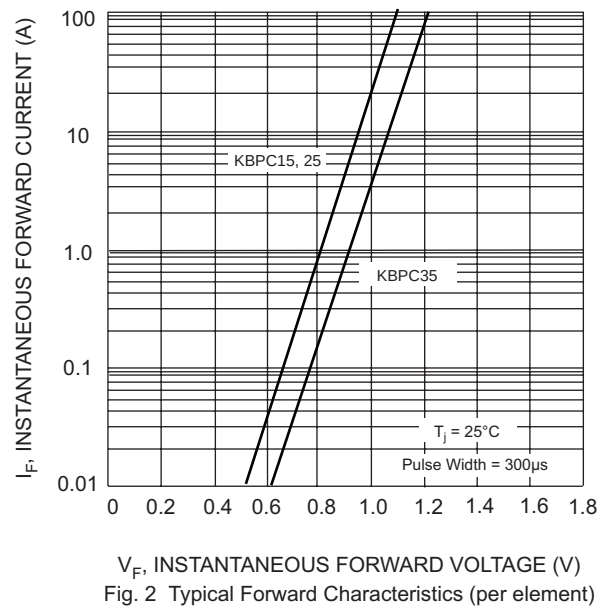
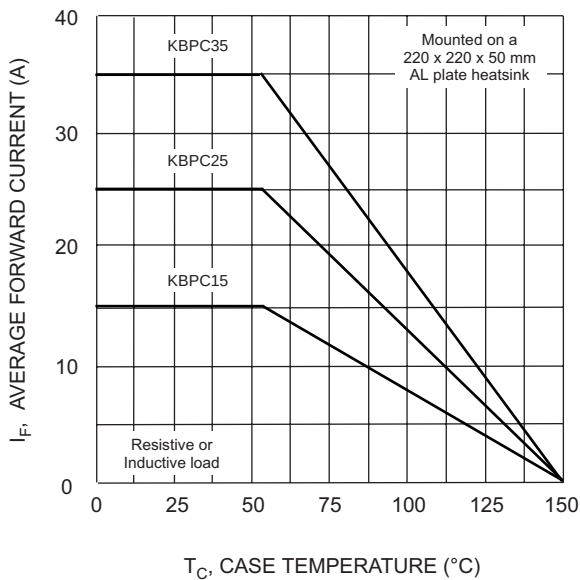
Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Characteristics                                                                                                        | Symbol                            | -00GS                                                                                                    | -01GS | -02GS | -04GS | -06GS | -08GS | -10GS | Unit             |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|------------------|
| Peak Repetitive Reverse Voltage                                                                                        | V <sub>RRM</sub>                  |                                                                                                          |       |       |       |       |       |       |                  |
| Working Peak Reverse Voltage                                                                                           | V <sub>RWM</sub>                  | 50                                                                                                       | 100   | 200   | 400   | 600   | 800   | 1000  | V                |
| DC Blocking Voltage                                                                                                    | V <sub>R</sub>                    |                                                                                                          |       |       |       |       |       |       |                  |
| RMS Reverse Voltage                                                                                                    | V <sub>R(RMS)</sub>               | 35                                                                                                       | 70    | 140   | 280   | 420   | 560   | 700   | V                |
| Average Rectified Output Current<br>@T <sub>C</sub> = 55°C                                                             | I <sub>O</sub>                    | 15<br>25<br>35                                                                                           |       |       |       |       |       |       | A                |
| Non-Repetitive Peak Forward Surge Current,<br>8.3ms Single Half-sine-wave Superimposed<br>on Rated Load (JEDEC Method) | I <sub>FSM</sub>                  | 300<br>300<br>400                                                                                        |       |       |       |       |       |       | A                |
| Forward Voltage Drop<br>(per element)                                                                                  | V <sub>FM</sub>                   | KBPC15 @I <sub>F</sub> = 7.5A<br>KBPC25 @I <sub>F</sub> = 12.5A<br>KBPC35 @I <sub>F</sub> = 17.5A<br>1.1 |       |       |       |       |       |       | V                |
| Peak Reverse Current at<br>Rated DC Blocking Voltage (per element)                                                     | I <sub>R</sub>                    | @T <sub>C</sub> = 25°C<br>@T <sub>C</sub> = 125°C<br>5.0<br>500                                          |       |       |       |       |       |       | µA               |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1)                                                                | I <sup>2</sup> t                  | KBPC15<br>KBPC25<br>KBPC35<br>374<br>374<br>664                                                          |       |       |       |       |       |       | A <sup>2</sup> s |
| Typical Thermal Resistance (per element) (Note 2)                                                                      | R <sub>θJC</sub>                  | 2.0                                                                                                      |       |       |       |       |       |       | 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               |

Note: 1. Non-repetitive for t > 1ms and < 8.3ms.

2. Thermal resistance junction to case per element mounted on 220 x 220 x 50mm thick AL plate.



## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| KBPCxx00GS  | SIL Bridge   | 72 Units/Box      |
| KBPCxx01GS  | SIL Bridge   | 72 Units/Box      |
| KBPCxx02GS  | SIL Bridge   | 72 Units/Box      |
| KBPCxx04GS  | SIL Bridge   | 72 Units/Box      |
| KBPCxx06GS  | SIL Bridge   | 72 Units/Box      |
| KBPCxx08GS  | SIL Bridge   | 72 Units/Box      |
| KBPCxx10GS  | SIL Bridge   | 72 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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