

**GLASS PASSIVATED BRIDGE RECTIFIERS**

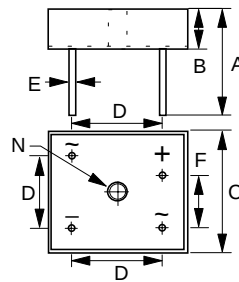
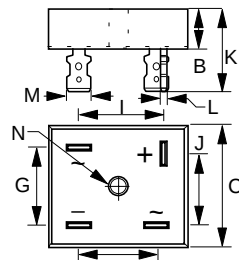
REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **15** Amperes

**FEATURES**

- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- UL recognized file # E95060

**MECHANICAL DATA**

- Case : Mounted in the bridge encapsulation
- Polarity : As marked on case
- Mounting : Hole for # 10 screw
- Weight : 0.85 ounces , 24.0 grams (terminal)  
: 0.74 ounces , 21.0 grams (wire)

**KBPC-GW (Wire)**

**KBPC-G (Terminal)**


| KBPC-G/KBPC-GW               |                       |       |
|------------------------------|-----------------------|-------|
| DIM.                         | MIN.                  | MAX.  |
| A                            | 31.80                 | -     |
| B                            | 7.90                  | 8.40  |
| C                            | 28.30                 | 28.80 |
| D                            | 17.60                 | 18.60 |
| E                            | 0.97                  | 1.07  |
| F                            | 10.90                 | 11.90 |
| G                            | 17.60                 | 18.60 |
| H                            | 13.80                 | 14.80 |
| I                            | 16.10                 | 17.10 |
| J                            | 16.10                 | 17.10 |
| K                            | 18.80                 | 21.30 |
| L                            | 0.76                  | 0.86  |
| M                            | 6.30                  | 6.50  |
| N                            | HOLE FOR NO. 10 SCREW |       |
|                              | 5.08                  | 5.59  |
| All Dimensions in millimeter |                       |       |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

| CHARACTERISTICS                                                                                                 | SYMBOL            | KBPC15<br>005G/W | KBPC15<br>01G/W | KBPC15<br>02G/W | KBPC15<br>04G/W | KBPC15<br>06G/W | KBPC15<br>08G/W | KBPC15<br>10G/W | UNIT             |
|-----------------------------------------------------------------------------------------------------------------|-------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                          | V <sub>RRM</sub>  | 50               | 100             | 200             | 400             | 600             | 800             | 1000            | V                |
| Maximum RMS Voltage                                                                                             | V <sub>RMS</sub>  | 35               | 70              | 140             | 280             | 420             | 560             | 700             | V                |
| Maximum DC Blocking Voltage                                                                                     | V <sub>DC</sub>   | 50               | 100             | 200             | 400             | 600             | 800             | 1000            | V                |
| Maximum Average Forward Rectified Current<br>@T <sub>c</sub> = 55°C                                             | I <sub>(AV)</sub> | 15.0             |                 |                 |                 |                 |                 |                 | A                |
| Peak Forward Surge Current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC METHOD)          | I <sub>FSM</sub>  | 300              |                 |                 |                 |                 |                 |                 | A                |
| Maximum forward Voltage at 7.5A DC                                                                              | V <sub>F</sub>    | 1.1              |                 |                 |                 |                 |                 |                 | V                |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage<br>@T <sub>J</sub> = 25°C<br>@T <sub>J</sub> = 125°C | I <sub>R</sub>    | 5.0<br>500       |                 |                 |                 |                 |                 |                 | uA               |
| I <sup>2</sup> t Rating for fusing (t < 8.3ms), (Note 1)                                                        | I <sup>2</sup> t  | 374              |                 |                 |                 |                 |                 |                 | A <sup>2</sup> S |
| Typical Junction Capacitance per element (Note 2)                                                               | C <sub>J</sub>    | 300              |                 |                 |                 |                 |                 |                 | pF               |
| Typical Thermal Resistance (Note 3)                                                                             | R <sub>θJC</sub>  | 2.3              |                 |                 |                 |                 |                 |                 | °C/W             |
| Operating Temperature Range                                                                                     | T <sub>J</sub>    | -55 to +150      |                 |                 |                 |                 |                 |                 | °C               |
| Storage Temperature Range                                                                                       | T <sub>STG</sub>  | -55 to +150      |                 |                 |                 |                 |                 |                 | °C               |

NOTES : 1. Measured at non-repetitive, for greater than 1ms and less than 8.3ms  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

REV. 2, 01-Dec-2000, KBDI01

FIG.1 - FORWARD CURRENT DERATING CURVE

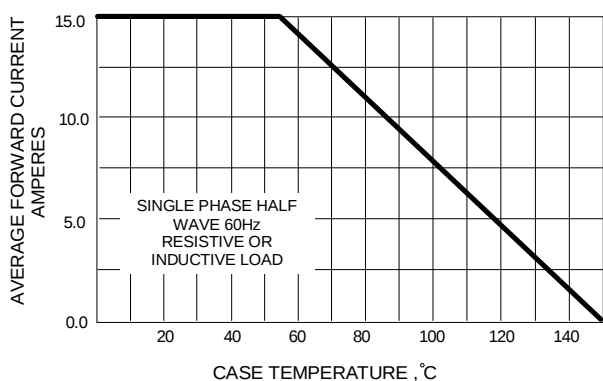


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

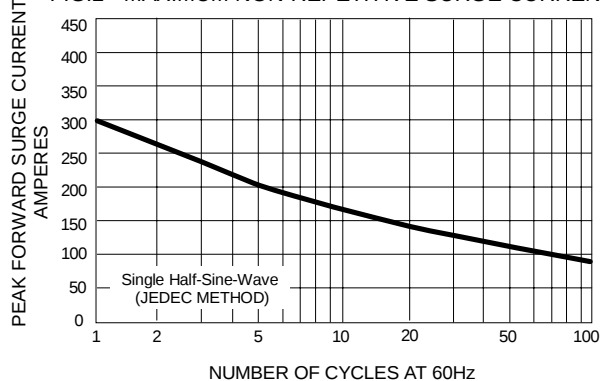


FIG.3 - TYPICAL JUNCTION CAPACITANCE

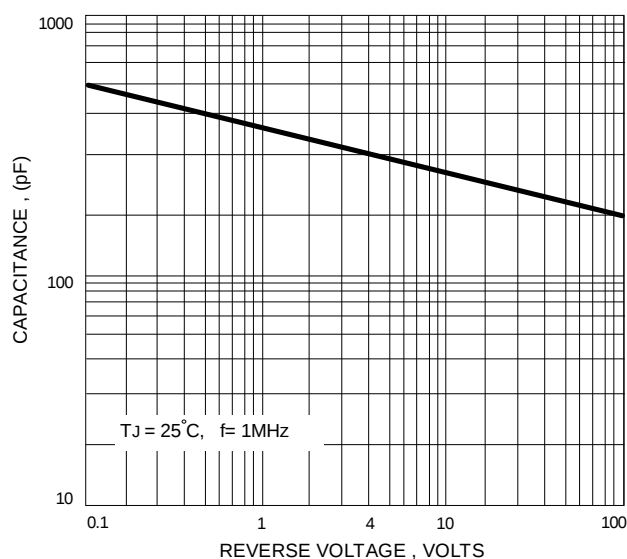


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

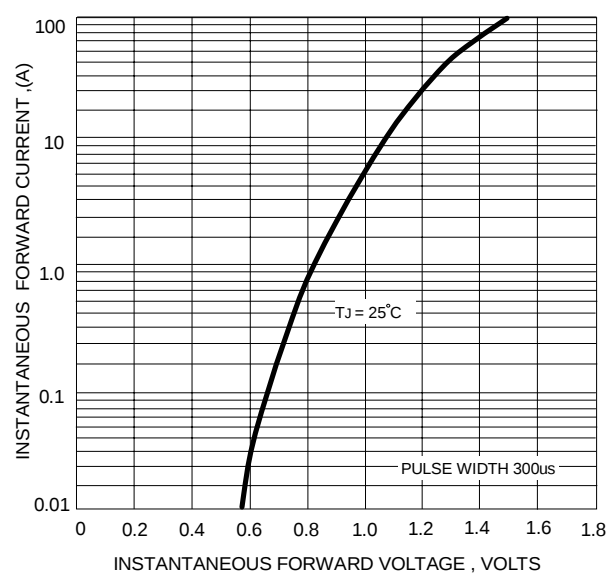


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

