

**GLASS PASSIVATED BRIDGE RECTIFIERS**

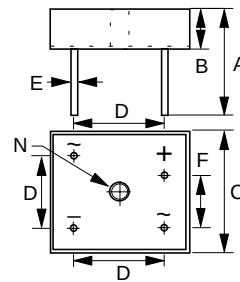
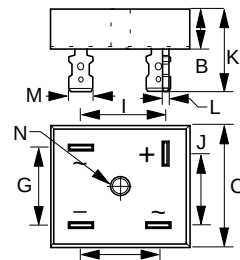
REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **35** Amperes

**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          | KBPC35005G/W | KBPC3501G/W | KBPC3502G/W | KBPC3504G/W | KBPC3506G/W | KBPC3508G/W | KBPC3510G/W | UNIT         |
|----------------------------------------------------------------------------------------------------|-----------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Maximum Recurrent Peak Reverse Voltage                                                             | $V_{RRM}$       | 50           | 100         | 200         | 400         | 600         | 800         | 1000        | V            |
| Maximum RMS Voltage                                                                                | $V_{RMS}$       | 35           | 70          | 140         | 280         | 420         | 560         | 700         | V            |
| Maximum DC Blocking Voltage                                                                        | $V_{DC}$        | 50           | 100         | 200         | 400         | 600         | 800         | 1000        | V            |
| Maximum Average Forward Rectified Current @ $T_c = 55^\circ C$                                     | $I(AV)$         | 35.0         |             |             |             |             |             |             | A            |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)  | $I_{FSM}$       | 400          |             |             |             |             |             |             | A            |
| Maximum forward Voltage at 17.5A DC                                                                | $V_F$           | 1.1          |             |             |             |             |             |             | V            |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J = 25^\circ C$ @ $T_J = 125^\circ C$ | $I_R$           | 5.0<br>500   |             |             |             |             |             |             | $\mu A$      |
| $I^2 t$ Rating for fusing ( $t < 8.3ms$ ), (Note 1)                                                | $I^2 t$         | 660          |             |             |             |             |             |             | $A^2 S$      |
| Typical Junction Capacitance per element (Note 2)                                                  | $C_J$           | 300          |             |             |             |             |             |             | pF           |
| Typical Thermal Resistance (Note 3)                                                                | $R_{\theta JC}$ | 1.4          |             |             |             |             |             |             | $^\circ C/W$ |
| Operating Temperature Range                                                                        | $T_J$           | -55 to +150  |             |             |             |             |             |             | $^\circ C$   |
| Storage Temperature Range                                                                          | $T_{STG}$       | -55 to +150  |             |             |             |             |             |             | $^\circ C$   |

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, KBDI03

FIG.1 - FORWARD CURRENT DERATING CURVE

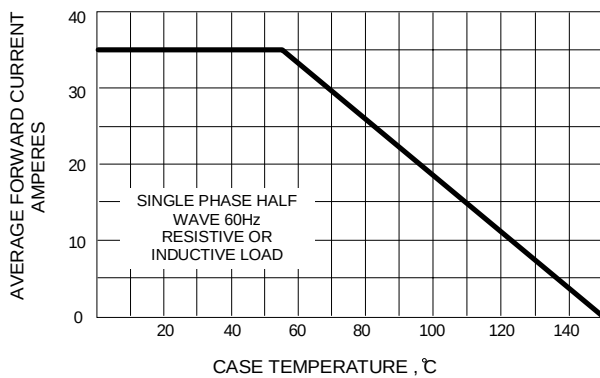


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

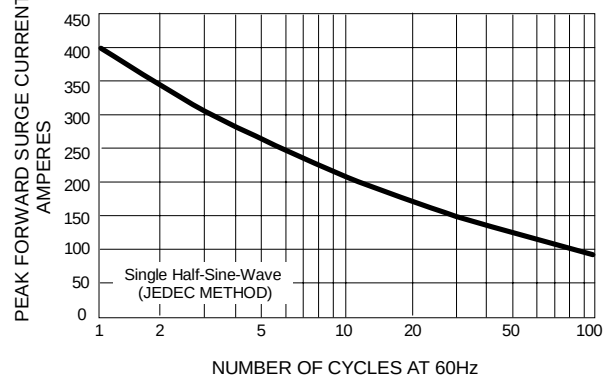


FIG.3 - TYPICAL JUNCTION CAPACITANCE

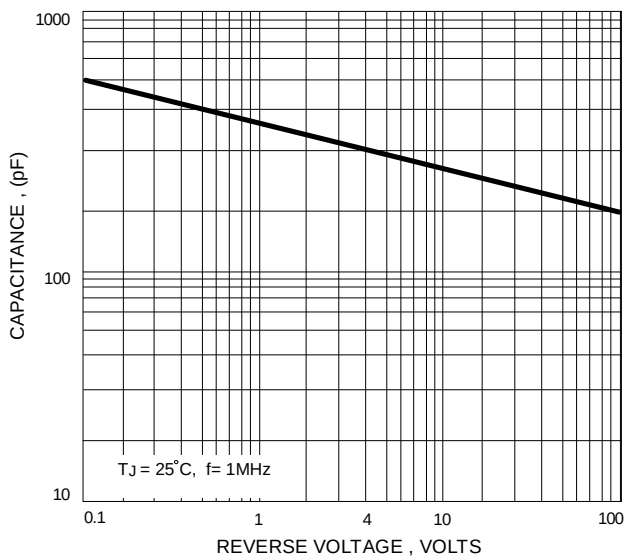


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

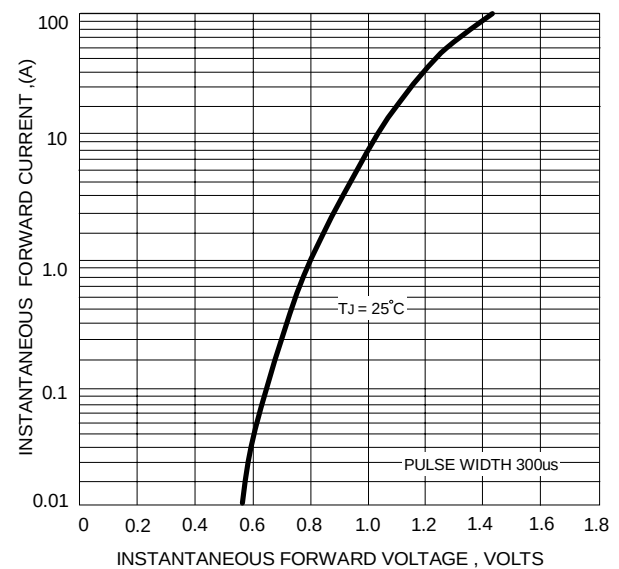


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

