

**GLASS PASSIVATED BRIDGE RECTIFIERS**

**REVERSE VOLTAGE – 400 to 1000 Volts  
FORWARD CURRENT – 2.0 Ampere**

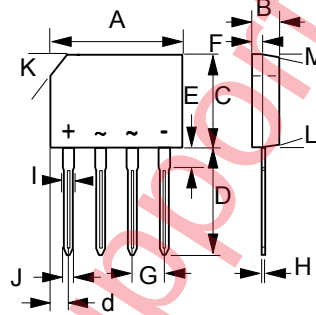
**FEATURES**

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- UL recognized file #95060

**MECHANICAL DATA**

- Polarity : As marked on body
- Weight : 0.05 ounces, 1.52 grams
- Mounting position : Any

**KBP**



| KBP                          |                 |       |
|------------------------------|-----------------|-------|
| DIM.                         | MIN.            | MAX.  |
| A                            | 14.25           | 14.75 |
| B                            | 3.35            | 3.65  |
| C                            | 10.20           | 10.60 |
| D                            | 14.25           | 14.73 |
| d                            | 1.40            | 1.70  |
| E                            | 1.80            | 2.20  |
| F                            | 0.80            | 1.10  |
| G                            | 3.56            | 4.06  |
| H                            | 0.35            | 0.55  |
| I                            | 1.22            | 1.42  |
| J                            | 0.76            | 0.86  |
| K                            | 2.7 x 45°(Typ.) |       |
| L                            | -               | 3°    |
| M                            | -               | 2°    |
| All Dimensions in millimeter |                 |       |

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

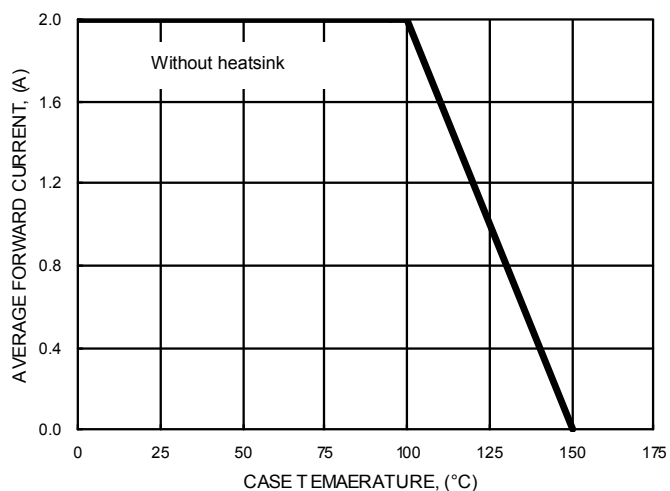
| CHARACTERISTICS                                                                                             | SYMBOL            | KBP204G    | KBP206G | KBP208G | KBP210G | UNIT             |
|-------------------------------------------------------------------------------------------------------------|-------------------|------------|---------|---------|---------|------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                     | V <sub>RRM</sub>  | 400        | 600     | 800     | 1000    | V                |
| Maximum RMS Voltage                                                                                         | V <sub>RMS</sub>  | 280        | 420     | 560     | 700     | V                |
| Maximum DC Blocking Voltage                                                                                 | V <sub>DC</sub>   | 400        | 600     | 800     | 1000    | V                |
| Maximum Average Forward Rectified Current @T <sub>C</sub> =100°C                                            | I <sub>(AV)</sub> | 2.0        |         |         |         | A                |
| Peak Forward Surge Current @ T <sub>J</sub> = 25 °C<br>8.3ms single half sine-wave @ T <sub>J</sub> = 125°C | I <sub>FSM</sub>  | 75<br>65   |         |         |         | A                |
| Peak Forward Surge Current @ T <sub>J</sub> = 25 °C<br>1.0ms single half sine-wave @ T <sub>J</sub> = 125°C | I <sub>FSM</sub>  | 150<br>130 |         |         |         | A                |
| Maximum Forward Voltage at 2.0A DC                                                                          | V <sub>F</sub>    | 1.1        |         |         |         | V                |
| Maximum DC Reverse Current at rated Blocking Voltage @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 (3ms ≤ t ≤ 8.3ms)                                                        | I <sup>2</sup> t  | 17.5       |         |         |         | A <sup>2</sup> S |
| Typical Junction Capacitance per element (Note 1)                                                           | C <sub>J</sub>    | 25         |         |         |         | pF               |
| Typical thermal resistance (Note 2)                                                                         | R <sub>θJC</sub>  | 10         |         |         |         | °C/W             |
|                                                                                                             | R <sub>θJL</sub>  | 18         |         |         |         |                  |
|                                                                                                             | R <sub>θJA</sub>  | 40         |         |         |         |                  |
| Operation Temperature Range                                                                                 | T <sub>J</sub>    | -55 to 150 |         |         |         | °C               |
| Storage Temperature Range                                                                                   | T <sub>STG</sub>  | -55 to 150 |         |         |         | °C               |

Note: (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

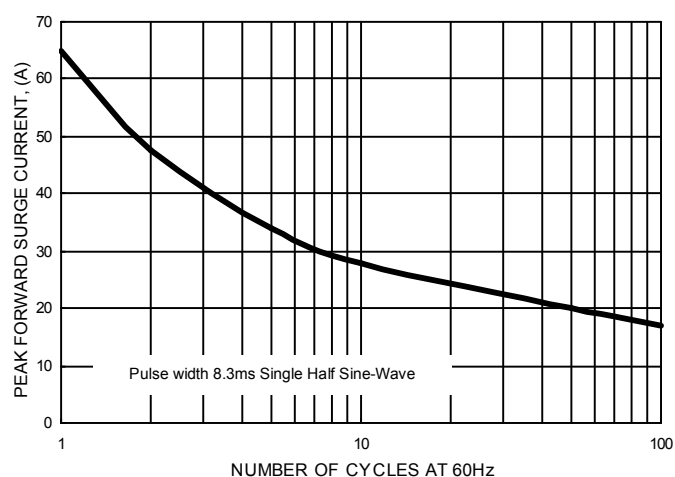
(2) Thermal Resistance Junction to Case, Lead and Ambient.

REV. 17, Sep-2012, KBDE02

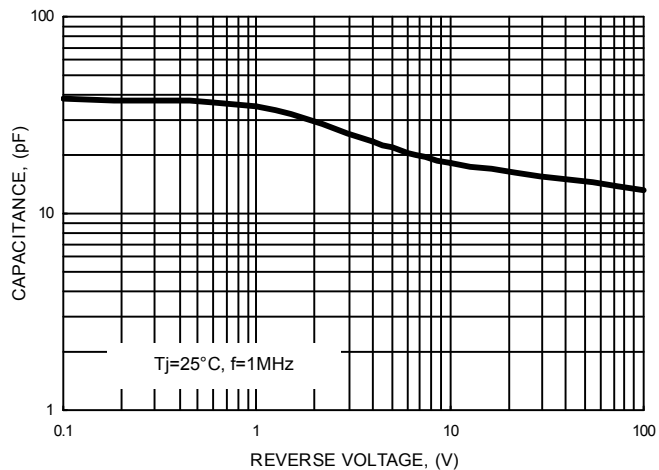
**FIG.1- FORWARD CURRENT DERATING CURVE**



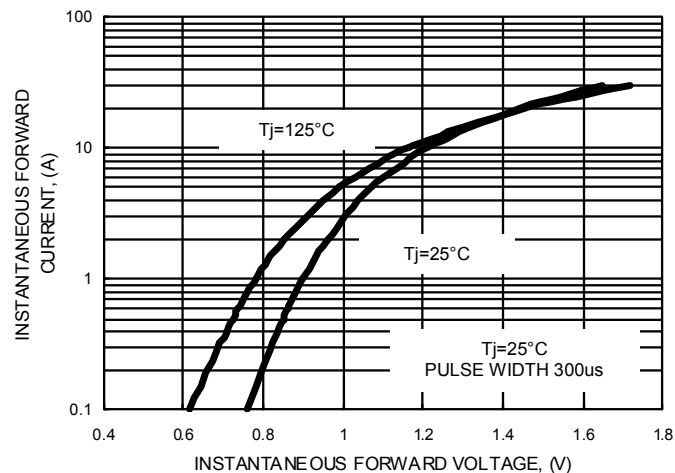
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



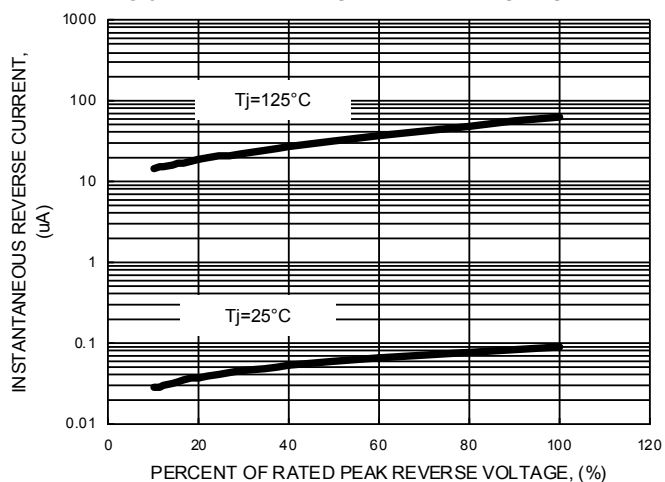
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**FIG.6- NON-REPETITIVE SURGE CURRENT**

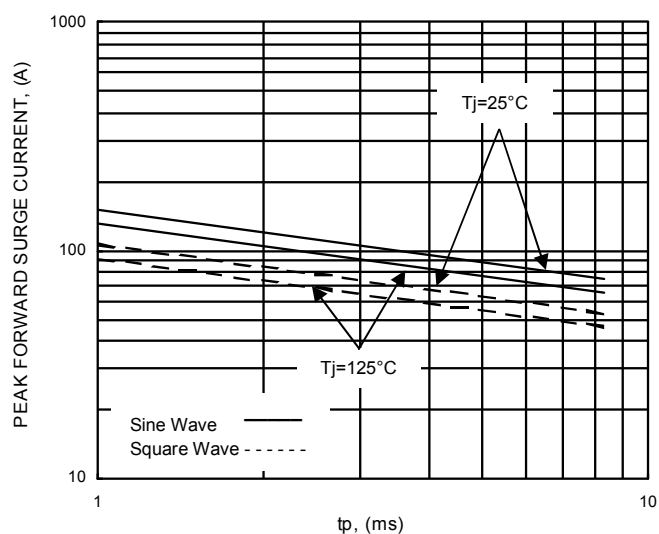
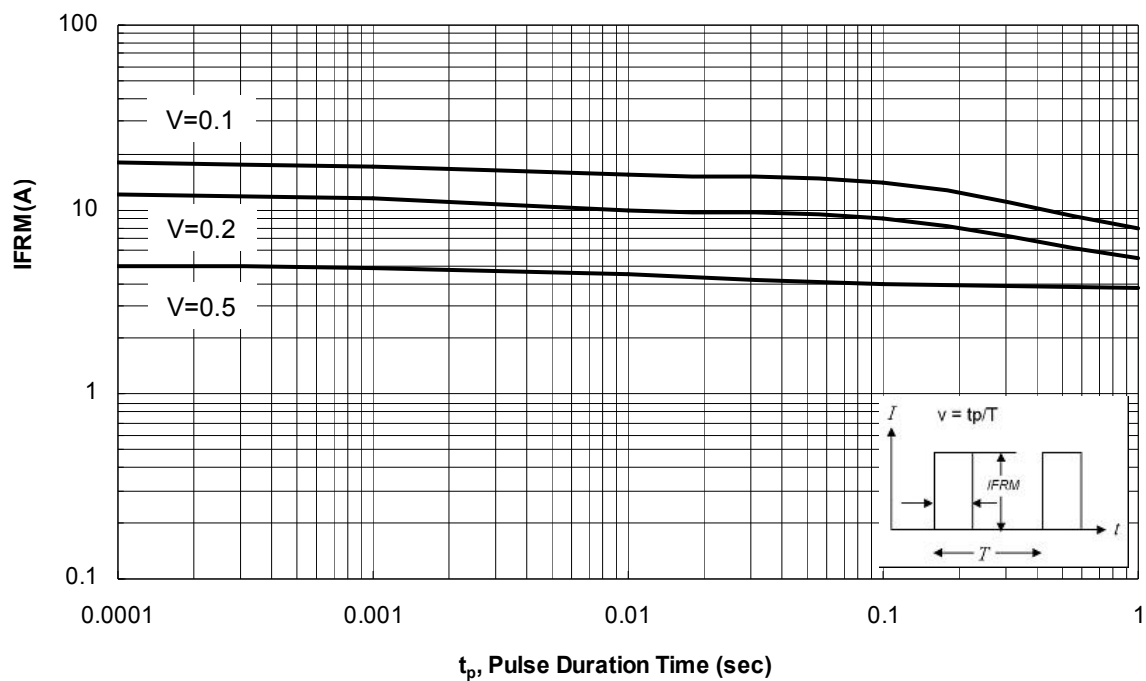


Fig.7 - Admissible Repetitive Peak Forward Current vs. Pulse Duration



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