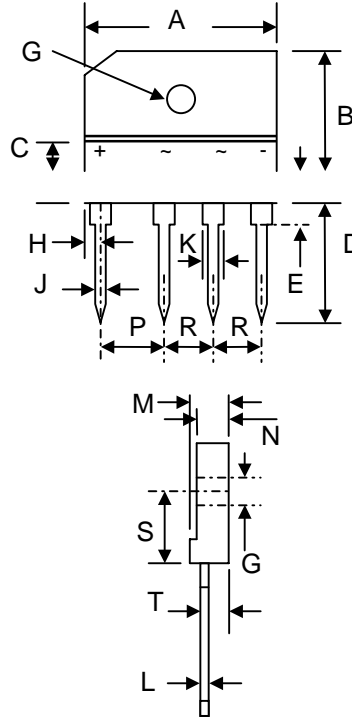


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**Features**

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards



| KBJ-6 |       |       |       |         |
|-------|-------|-------|-------|---------|
| Dim   | Min   | Max   | Min   | Max     |
| A     | 29.7  | 30.3  | 1.169 | 1.193   |
| B     | 19.7  | 20.3  | 0.776 | 0.799   |
| C     | —     | 5.0   | —     | 0.197   |
| D     | 17.0  | 18.0  | 0.669 | 0.709   |
| E     | 3.8   | 4.2   | 0.150 | 0.165   |
| G     | 3.1 Ø | 3.4 Ø | 0.122 | 0.134   |
| H     | 2.3   | 2.7   | 0.091 | 0.106   |
| J     | 0.9   | 1.1   | 0.035 | 0.043   |
| K     | 1.8   | 2.2   | 0.071 | 0.087   |
| L     | 0.6   | 0.8   | 0.024 | 0.031   |
| M     | 4.8   | 5.3   | 0.189 | 0.209   |
| N     | 4.05  | 4.35  | 0.159 | 0.171   |
| P     | 9.8   | 10.2  | 0.386 | 0.402   |
| R     | 7.3   | 7.7   | 0.287 | 0.303   |
| S     | 11.8  | 12.2  | 0.465 | 0.480   |
| T     | 3.2   | 3.4   | 0.126 | 0.134   |
|       |       |       | In mm | In inch |

**Mechanical Data**

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 4.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

**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%.

| Characteristic   | Symbol   | KBJ 25A     | KBJ 25B | KBJ 25D | KBJ 25G | KBJ 25J | KBJ 25K | KBJ 25M | KBJ 25Q | Unit |
|--|--|-------------|---------|---------|---------|---------|---------|---------|---------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                             | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | 1200    | V    |
| RMS Reverse Voltage  | V <sub>R(RMS)</sub>                                    | 35          | 70      | 140     | 280     | 420     | 560     | 700     | 840     | V    |
| Average Rectified Output Current @T <sub>C</sub> = 100°C (Note 1)  | I <sub>O</sub>   | 25          |         |         |         |         |         |         |         | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 300         |         |         |         |         |         |         |         | A    |
| Forward Voltage (per element) @I <sub>F</sub> = 12.5A  | V <sub>FM</sub>  | 1.1         |         |         |         |         |         |         |         | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>C</sub> = 100°C                | I <sub>R</sub>   | 10<br>200   |         |         |         |         |         |         |         | µA   |
| Typical Thermal Resistance (per leg) (Note 1)  | R <sub>θJC</sub>                                       | 0.6         |         |         |         |         |         |         |         | °C/W |
| Operating and Storage Temperature Range  | T <sub>i</sub> , T <sub>STG</sub>                      | -55 to +150 |         |         |         |         |         |         |         | °C   |

Note: 1. Device mounted on 220 x 220 x 1.6mm thick AL plate heatsink.

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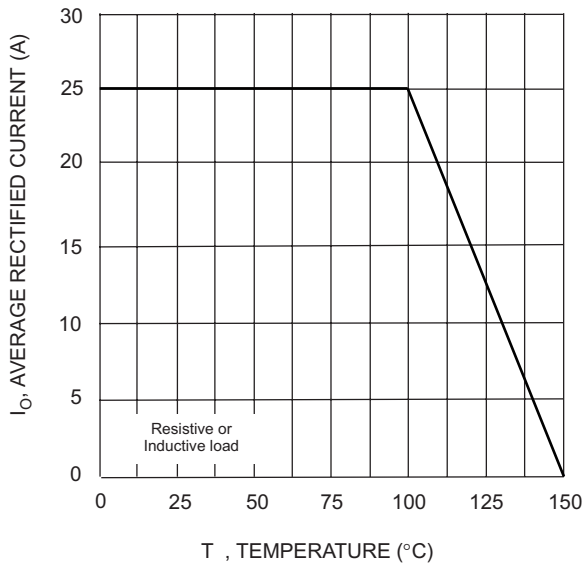


Fig. 1 Forward Current Derating Curve

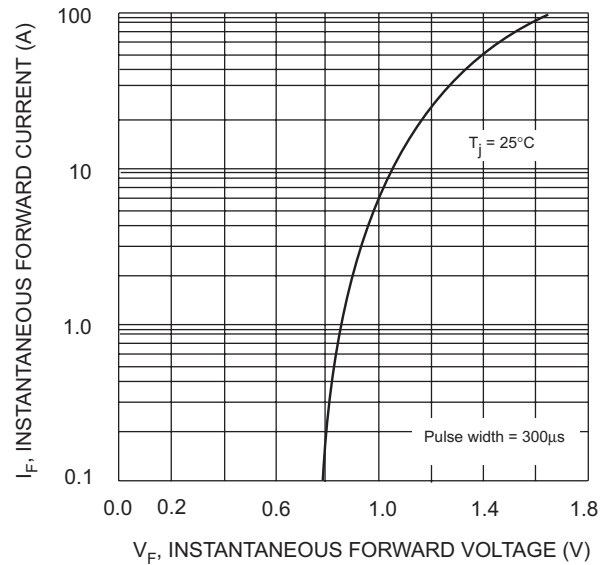


Fig. 2 Typical Fwd Characteristics, per element

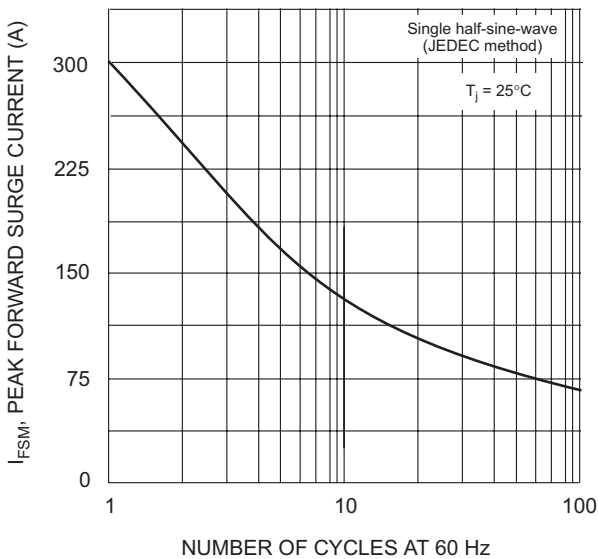


Fig. 3 Maximum Non-Repetitive Surge Current

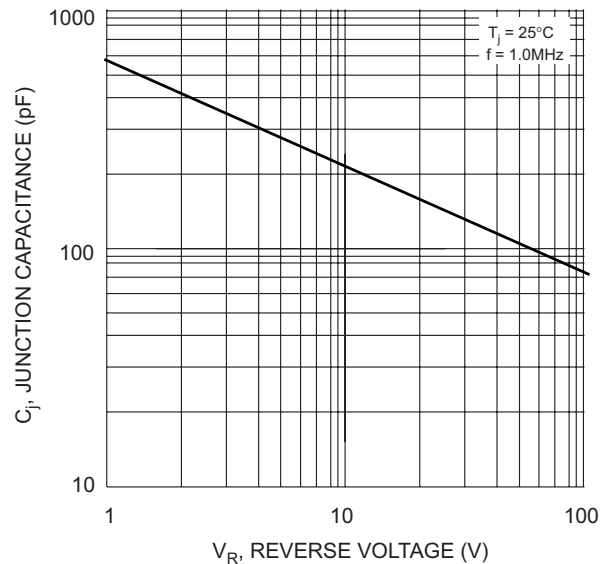


Fig. 4 Typical Junction Capacitance

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