

# KBJ6A - KBJ6M

## **6.0A BRIDGE RECTIFIER**

#### **Features**

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

### **Mechanical Data**

Case: Molded Plastic

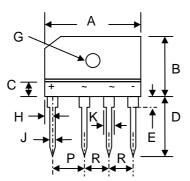
Terminals: Plated Leads Solderable per

MIL-STD-202, Method 208

Polarity: As Marked on BodyWeight: 4.0 grams (approx.)

Weight: 4.0 grams (appromote Mounting Position: Any

Marking: Type Number





| KBJ-6                |      |      |  |  |  |  |
|----------------------|------|------|--|--|--|--|
| Dim                  | Min  | Max  |  |  |  |  |
| Α                    | 29.7 | 30.3 |  |  |  |  |
| В                    | 19.7 | 20.3 |  |  |  |  |
| С                    | 4.7  | 4.9  |  |  |  |  |
| D                    | 17.0 | 18.0 |  |  |  |  |
| Е                    | 3.8  | 4.2  |  |  |  |  |
| G                    | 3.1Ø | 3.4Ø |  |  |  |  |
| Н                    | 2.3  | 2.7  |  |  |  |  |
| J                    | 0.9  | 1.1  |  |  |  |  |
| K                    | 2.0  | 2.4  |  |  |  |  |
| L                    | 0.6  | 0.7  |  |  |  |  |
| М                    | 4.4  | 4.8  |  |  |  |  |
| N                    | 3.4  | _    |  |  |  |  |
| Р                    | 9.8  | 10.2 |  |  |  |  |
| R                    | 7.3  | 7.7  |  |  |  |  |
| S                    | 10.8 | 11.2 |  |  |  |  |
| T                    | 2.6  | _    |  |  |  |  |
| All Dimensions in mm |      |      |  |  |  |  |

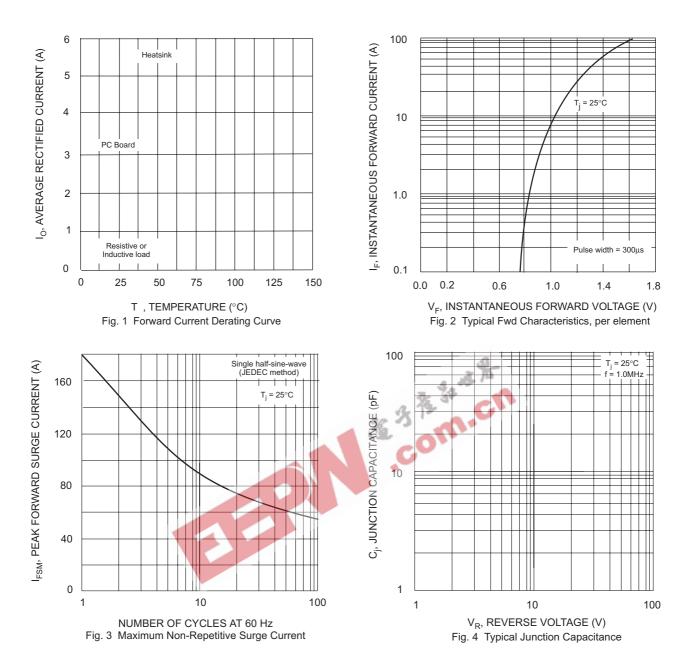
## Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic  | Symbol             | KBJ6A       | KBJ6B | KBJ6D | KBJ6G | KBJ6J | KBJ6K | KBJ6M | Unit             |
|---|--------------------|-------------|-------|-------|-------|-------|-------|-------|------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | VRRM<br>VRWM<br>VR | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | <b>V</b>         |
| RMS Reverse Voltage   | VR(RMS)            | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                |
| Average Rectified Output Current $@T_C = 100^{\circ}C$ $@T_A = 25^{\circ}C$   | lo                 | 6.0<br>2.8  |       |       |       |       | Α     |       |                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | IFSM               |             |       |       | 170   |       |       |       | Α                |
| I <sup>2</sup> t Rating for Fusing (t < 8.35ms)   | l <sup>2</sup> t   |             |       |       | 100   |       |       |       | A <sup>2</sup> s |
| Forward Voltage (per diode) @I <sub>F</sub> = 3.0A  | VFM                |             |       |       | 1.05  |       |       |       | V                |
|   | lR                 | 5.0<br>500  |       |       |       | μΑ    |       |       |                  |
| Typical Thermal Resistance (per leg) (Note 1)   | RθJA               | 26          |       |       |       |       | K/W   |       |                  |
| Typical Thermal Resistance (per leg) (Note 2)   | R <sub>θ</sub> JC  | 3.4         |       |       |       |       | K/W   |       |                  |
| Operating and Storage Temperature Range   | Tj, Tstg           | -55 to +150 |       |       |       |       | °C    |       |                  |

Note: 1. Thermal resistance junction to ambient, mounted on PCB at 9.5mm lead length.

2. Thermal resistance junction to case, mounted on 7.5 x 7.5 x 0.8cm thick AL plate heatsink.



#### **ORDERING INFORMATION**

| Product No. | Package Type | Shipping Quantity |  |  |  |
|-------------|--------------|-------------------|--|--|--|
| KBJ6A       | SIL Bridge   | 20 Units/Tube     |  |  |  |
| KBJ6B       | SIL Bridge   | 20 Units/Tube     |  |  |  |
| KBJ6D       | SIL Bridge   | 20 Units/Tube     |  |  |  |
| KBJ6G       | SIL Bridge   | 20 Units/Tube     |  |  |  |
| KBJ6J       | SIL Bridge   | 20 Units/Tube     |  |  |  |
| KBJ6K       | SIL Bridge   | 20 Units/Tube     |  |  |  |
| KBJ6M       | SIL Bridge   | 20 Units/Tube     |  |  |  |

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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