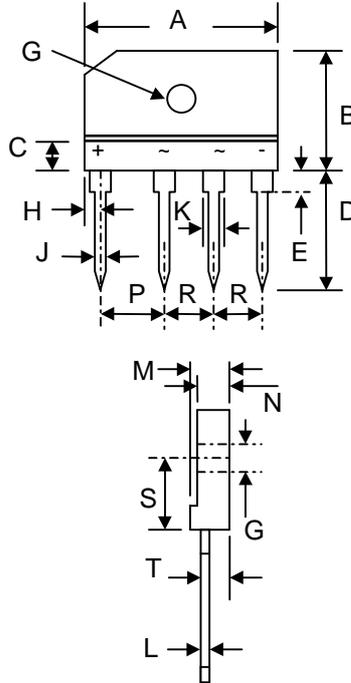


Features

- 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 |
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | 4.7 | 4.9 |
| D | 17.0 | 18.0 |
| E | 3.8 | 4.2 |
| G | 3.1Ø | 3.4Ø |
| H | 2.3 | 2.7 |
| J | 0.9 | 1.1 |
| K | 2.0 | 2.4 |
| L | 0.6 | 0.7 |
| M | 4.4 | 4.8 |
| N | 3.4 | — |
| P | 9.8 | 10.2 |
| R | 7.3 | 7.7 |
| S | 10.8 | 11.2 |
| T | 2.6 | — |
| All Dimensions in mm | | |

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 @ $T_A=25^\circ\text{C}$ 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 Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @ $T_C = 100^\circ\text{C}$ @ $T_A = 25^\circ\text{C}$ | I_O | 6.0 2.8 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 170 | | | | | | | A |
| I^2t Rating for Fusing ($t < 8.35\text{ms}$) | I^2t | 100 | | | | | | | A^2s |
| Forward Voltage (per diode) @ $I_F = 3.0\text{A}$ | V_{FM} | 1.05 | | | | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 100^\circ\text{C}$ | I_R | 5.0 500 | | | | | | | μA |
| Typical Thermal Resistance (per leg) (Note 1) | $R_{\theta JA}$ | 26 | | | | | | | K/W |
| Typical Thermal Resistance (per leg) (Note 2) | $R_{\theta JC}$ | 3.4 | | | | | | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

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.

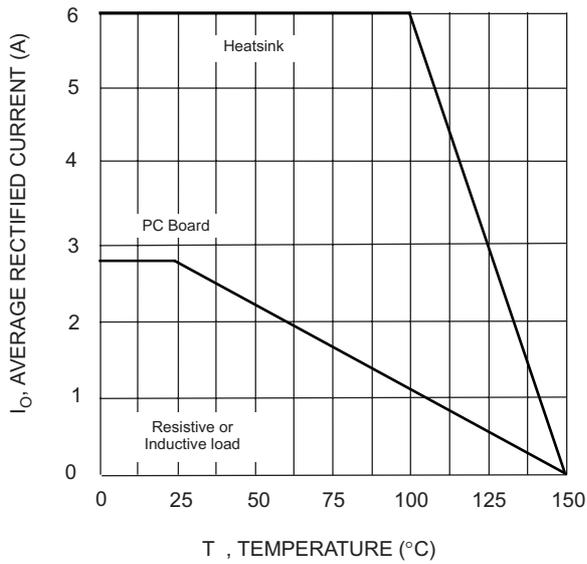


Fig. 1 Forward Current Derating Curve

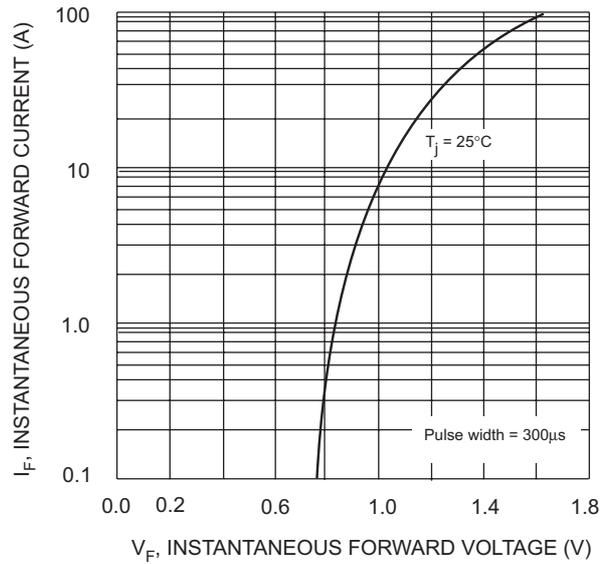


Fig. 2 Typical Fwd Characteristics, per element

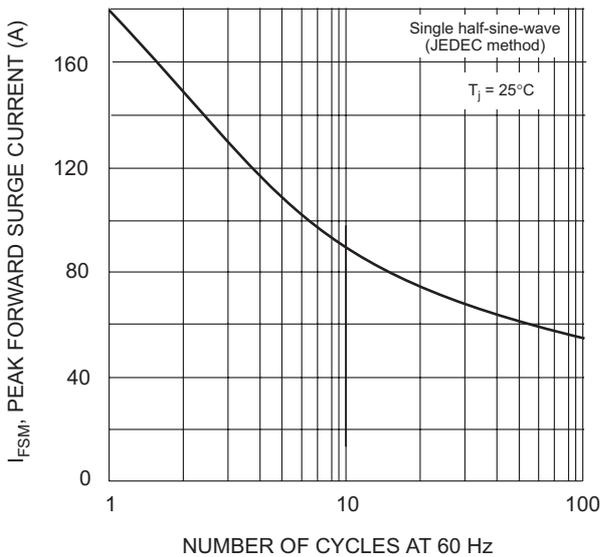


Fig. 3 Maximum Non-Repetitive Surge Current

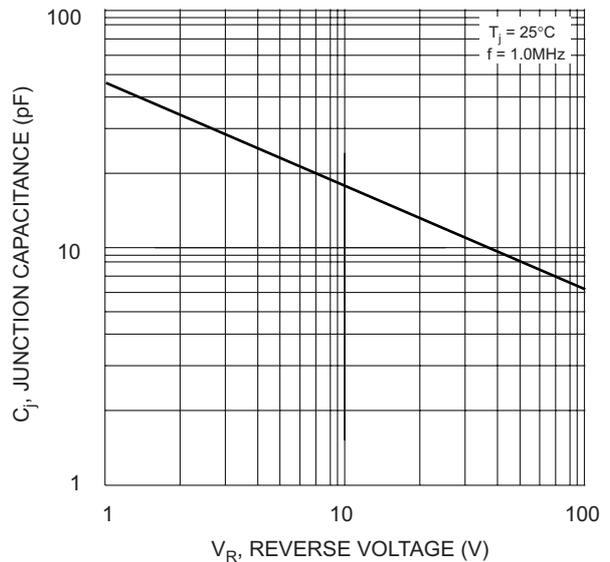


Fig. 4 Typical Junction Capacitance

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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