


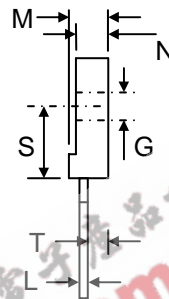
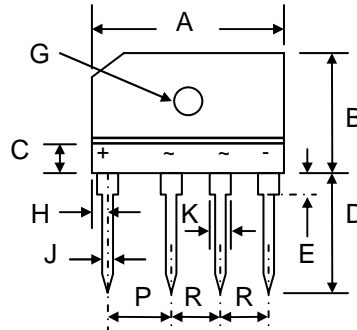
6.0A SINGLE-PHASE BRIDGE RECTIFIER

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
-  Recognized File # E157705

Mechanical Data

- Case: KBJ-6, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 7.4 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 10 cm·kg (8.8 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



| KBJ-6 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | — | 5.0 |
| 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 | 1.8 | 2.2 |
| L | 0.6 | 0.8 |
| M | 4.8 | 5.3 |
| N | 4.05 | 4.35 |
| P | 9.8 | 10.2 |
| R | 7.3 | 7.7 |
| S | 10.8 | 11.2 |
| T | 2.3 | 2.7 |
| All Dimensions in mm | | |

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

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

| Characteristic | Symbol | KBJ 6A | KBJ 6B | KBJ 6D | KBJ 6G | KBJ 6J | KBJ 6K | KBJ 6M | Unit |
|---|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | | | | | | | | |
| Working Peak Reverse Voltage | V _{RWM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @T _C = 110°C (Note 1) | I _O | 6.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 170 | | | | | | | A |
| Forward Voltage per diode @I _F = 3.0A | V _{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C | I _R | 10 250 | | | | | | | µA |
| Typical Thermal Resistance per leg (Note 2) | R _{θJA} | 26 | | | | | | | °C/W |
| Typical Thermal Resistance per leg (Note 1) | R _{θJC} | 3.4 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -55 to +150 | | | | | | | °C |

Note: 1. Device mounted on 75 x 75 x 1.6mm thick Al plate heatsink.
2. Device mounted on P.C.B. without heatsink.

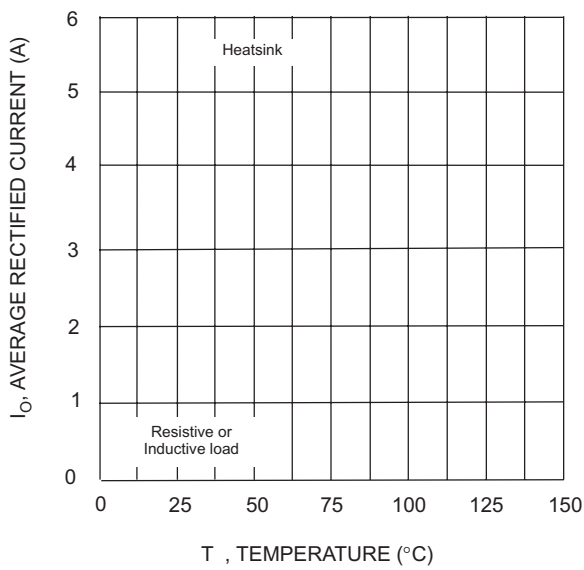


Fig. 1 Forward Current Derating Curve

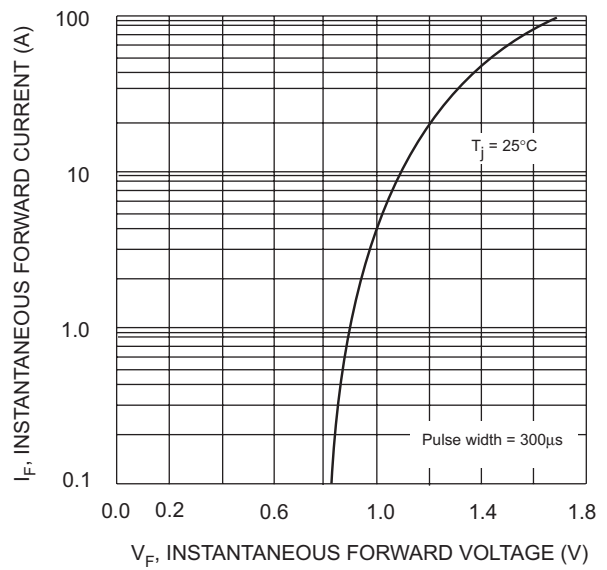


Fig. 2 Typical Fwd Characteristics, per element

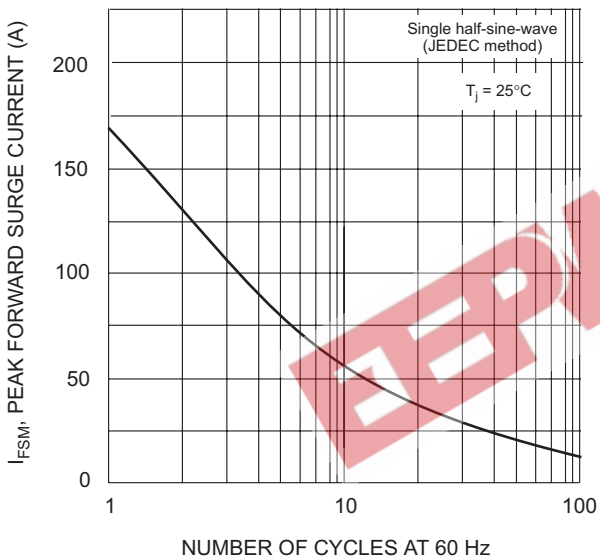


Fig. 3 Maximum Non-Repetitive Surge Current

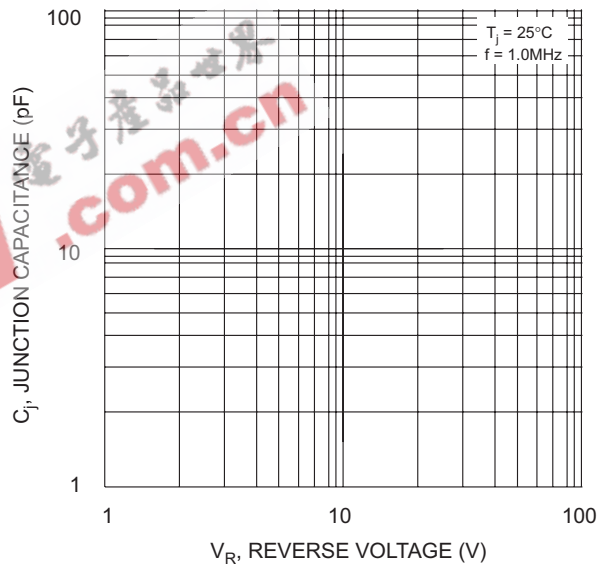
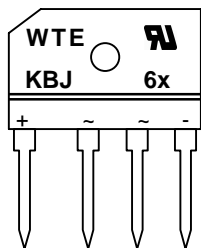


Fig. 4 Typical Junction Capacitance

MARKING INFORMATION



WTE = Manufacturer's Logo
 KBJ6x = Device Number
 x = A, B, D, G, J, K or M
 Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

| Tube Size L x W x H (mm) | Quantity (PCS) | Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|-----------------------------|-------------------|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 475 x 40 x 7 | 15 | 490 x 145 x 135 | 750 | 510 x 305 x 160 | 1,500 | 17.0 |

Note: 1. Anti-static tube, water clear color.

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ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| KBJ6A | SIL Bridge | 15 Units/Tube |
| KBJ6B | SIL Bridge | 15 Units/Tube |
| KBJ6D | SIL Bridge | 15 Units/Tube |
| KBJ6G | SIL Bridge | 15 Units/Tube |
| KBJ6J | SIL Bridge | 15 Units/Tube |
| KBJ6K | SIL Bridge | 15 Units/Tube |
| KBJ6M | SIL Bridge | 15 Units/Tube |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBJ6A-LF.**

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