
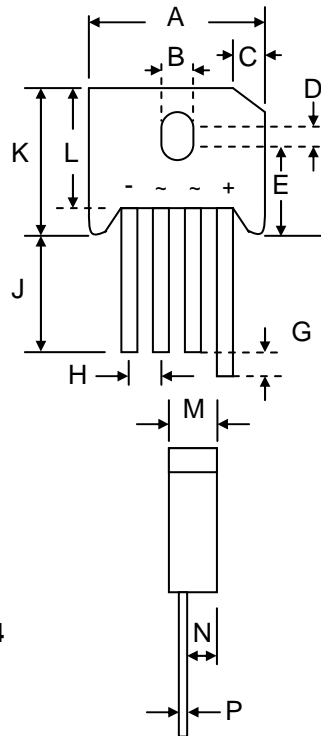


### Features

- 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: KBU, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 8.0 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 0.8 N.m Max.
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



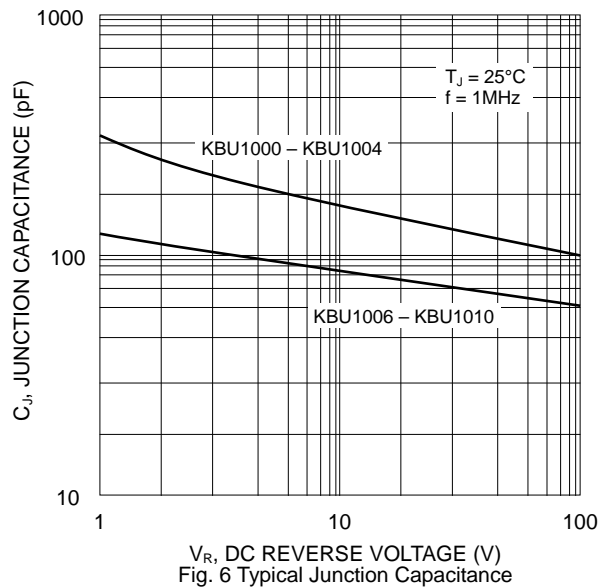
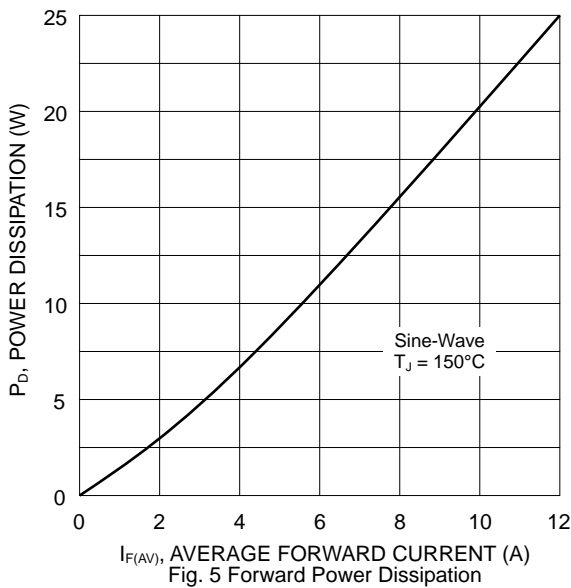
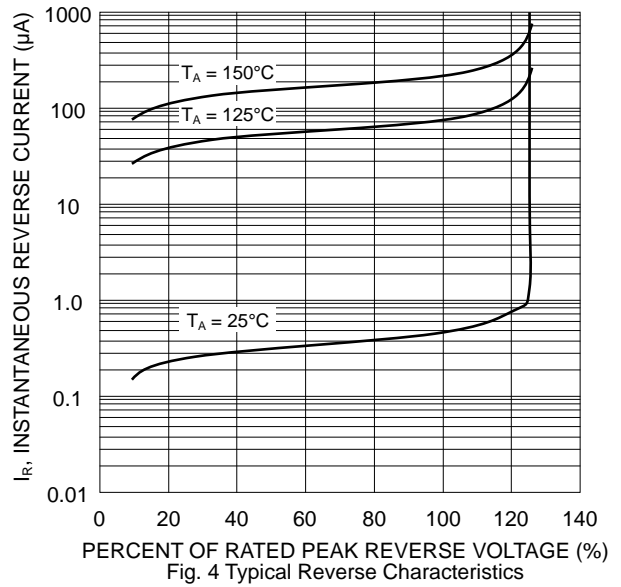
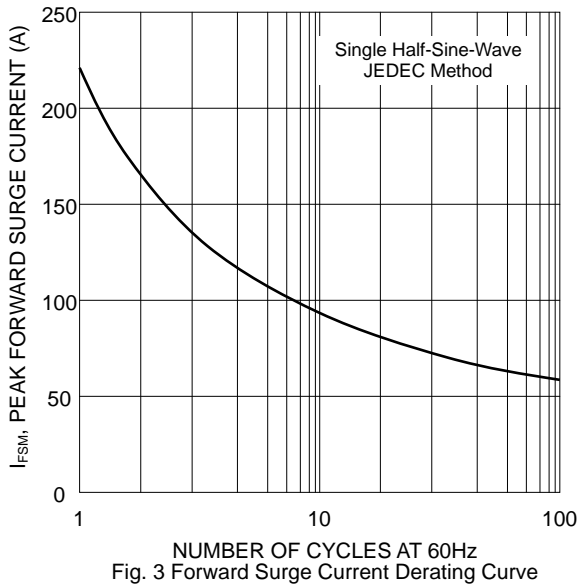
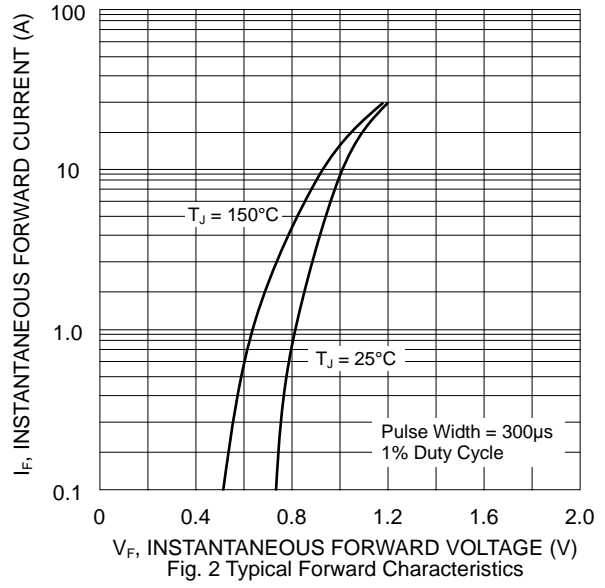
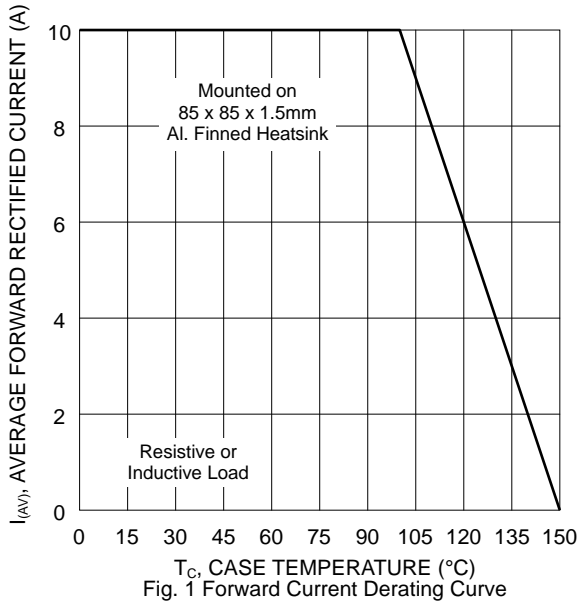
| KBU                  |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 22.70 | 23.70 |
| B                    | 3.60  | 4.10  |
| C                    | 4.20  | 4.70  |
| D                    | 1.70  | 2.20  |
| E                    | 10.30 | 11.30 |
| G                    | 4.50  | 5.60  |
| H                    | 4.60  | 5.60  |
| J                    | 25.40 | —     |
| K                    | —     | 19.80 |
| L                    | 16.80 | 17.80 |
| M                    | 6.60  | 7.10  |
| N                    | 4.10  | 4.60  |
| P                    | 1.20  | 1.30  |
| All Dimensions in mm |       |       |

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

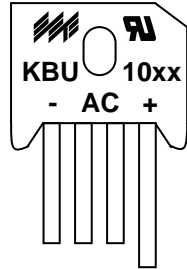
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic                                                                                                  | Symbol         | KBU 1000    | KBU 1001 | KBU 1002 | KBU 1004 | KBU 1006 | KBU 1008 | KBU 1010 | Unit                      |
|-----------------------------------------------------------------------------------------------------------------|----------------|-------------|----------|----------|----------|----------|----------|----------|---------------------------|
| Peak Repetitive Reverse Voltage                                                                                 | $V_{RRM}$      | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                         |
| Working Peak Reverse Voltage                                                                                    | $V_{RWM}$      |             |          |          |          |          |          |          |                           |
| DC Blocking Voltage                                                                                             | $V_R$          |             |          |          |          |          |          |          |                           |
| RMS Reverse Voltage                                                                                             | $V_{R(RMS)}$   | 35          | 70       | 140      | 280      | 420      | 560      | 700      | V                         |
| Average Rectified Output Current @ $T_C = 100^\circ\text{C}$ (Note 1)                                           | $I_O$          | 10          |          |          |          |          |          |          | A                         |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$      | 220         |          |          |          |          |          |          | A                         |
| Forward Voltage per leg @ $I_F = 5.0\text{A}$                                                                   | $V_{FM}$       | 1.0         |          |          |          |          |          |          | V                         |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$                                                                 | $I_{RM}$       | 10          |          |          |          |          |          |          | $\mu\text{A}$             |
| At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$                                                        |                | 1.0         |          |          |          |          |          |          | $\text{mA}$               |
| $I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )                                                                 | $I^2t$         | 200         |          |          |          |          |          |          | $\text{A}^2\text{s}$      |
| Typical Junction Capacitance (Note 2)                                                                           | $C_J$          | 211         |          |          |          | 94       |          |          | $\text{pF}$               |
| Thermal Resistance Junction to Ambient (Note 3)                                                                 | $R_{JA}$       | 16          |          |          |          |          |          |          | $^\circ\text{C}/\text{W}$ |
| Thermal Resistance Junction to Case (Note 1)                                                                    | $R_{JC}$       | 2.8         |          |          |          |          |          |          |                           |
| RMS Isolation Voltage Terminals to Case, $t = 1\text{min}$                                                      | $V_{ISO}$      | 1500        |          |          |          |          |          |          | V                         |
| Operating and Storage Temperature Range                                                                         | $T_J, T_{STG}$ | -55 to +150 |          |          |          |          |          |          | $^\circ\text{C}$          |

- Note: 1. Mounted on 85 x 85 x 1.5mm thick Al. heatsink.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 3. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.



## MARKING INFORMATION



KBU10xx = Device Number  
 xx = 00, 01, 02, 04, 06, 08 or 10  
 Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK

| Inner Box Size<br>L x W x H (mm) | Quantity<br>(PCS) | Carton Size<br>L x W x H (mm) | Quantity<br>(PCS) | Approx. Gross Weight<br>(KG) |
|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 268 x 227 x 51                   | 400               | 463 x 283 x 185               | 2,400             | 20.5                         |

**Note:** 1. Paper box, white or brown color.

## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| KBU1000     | SIL Bridge   | 400 Units/Box     |
| KBU1001     | SIL Bridge   | 400 Units/Box     |
| KBU1002     | SIL Bridge   | 400 Units/Box     |
| KBU1004     | SIL Bridge   | 400 Units/Box     |
| KBU1006     | SIL Bridge   | 400 Units/Box     |
| KBU1008     | SIL Bridge   | 400 Units/Box     |
| KBU1010     | SIL Bridge   | 400 Units/Box     |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBU1000-LF.**

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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.

**Won-Top Electronics Co., Ltd.**  
No. 44 Yu Kang North 3rd Road,  
Chine Chen Dist., Kaohsiung 806, Taiwan  
**Phone:** 886-7-822-5408 or 886-7-822-5410  
**Fax:** 886-7-822-5417  
**Email:** sales@wontop.com  
**Internet:** <http://www.wontop.com>

*We power your everyday.*