


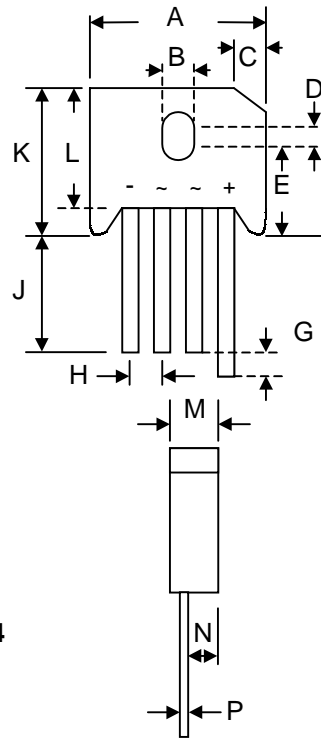
6.0A SINGLE-PHASE BRIDGE RECTIFIER

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: 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: 10 cm·kg (8.8 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



| Dim | KBU | |
|----------------------|-------|-------|
| | 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 | — | 19.30 |
| 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 600 | KBU 601 | KBU 602 | KBU 604 | KBU 606 | KBU 608 | KBU 610 | 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 @ $T_C = 100^\circ\text{C}$ (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} | 250 | | | | | | | A |
| Forward Voltage per leg @ $I_F = 3.0\text{A}$ | V_{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_R | 5.0 1.0 | | | | | | | μA mA |
| Typical Thermal Resistance per leg (Note 2) | $R_{\theta JA}$ | 8.6 | | | | | | | $^\circ\text{C/W}$ |
| Typical Thermal Resistance per leg (Note 1) | $R_{\theta JC}$ | 3.1 | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | | | | | | | $^\circ\text{C}$ |

Note: 1. Mounted on 65 x 35 x 1.5mm Al. plate.
2. Mounted on PCB at 9.5mm lead length with 12mm² copper pad.

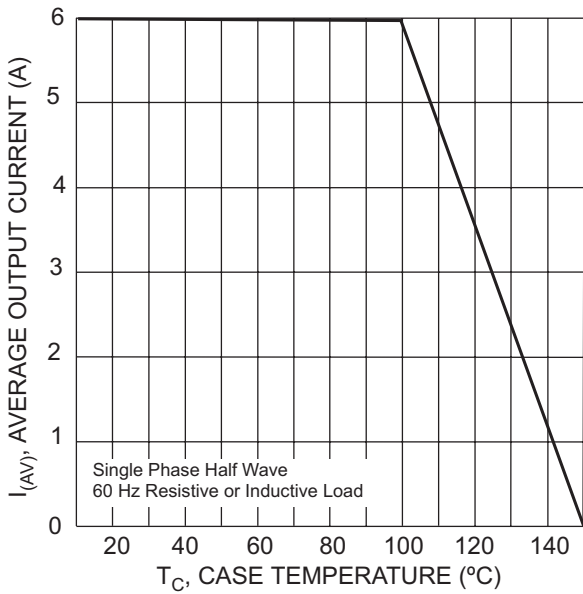


Fig. 1 Forward Current Derating Curve

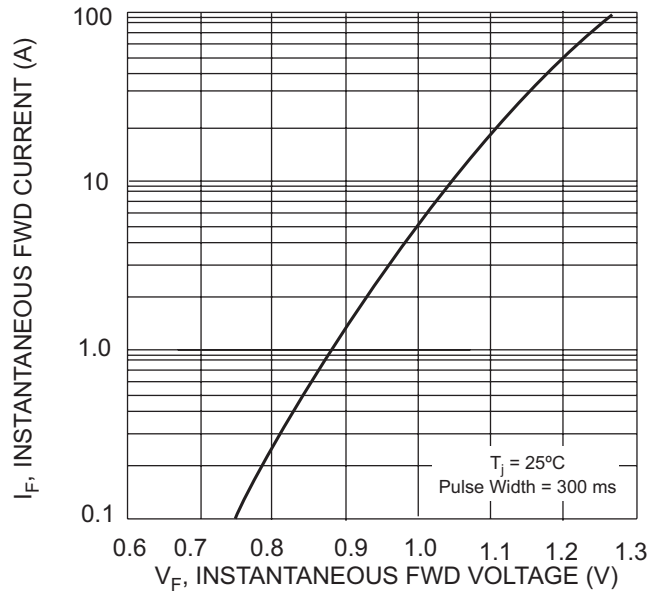


Fig. 2 Typical Forward Characteristics, per element

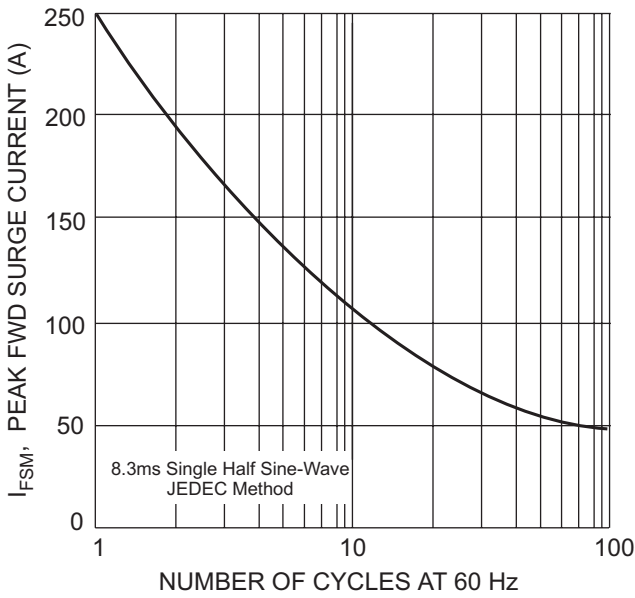


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

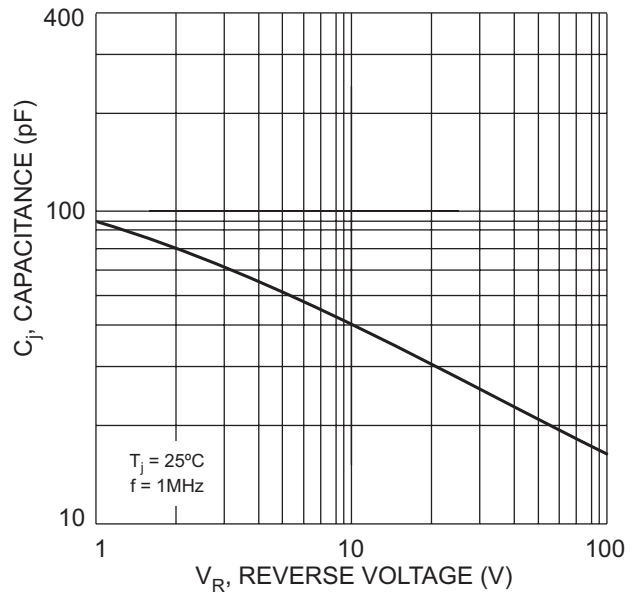
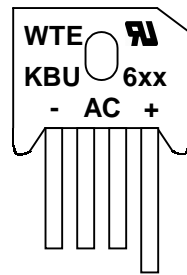


Fig. 4 Typical Junction Capacitance Per Element



Fig. 5 Typical Reverse Characteristics

MARKING INFORMATION



WTE = Manufacturer's Logo
KBU6xx = Device Number
xx = 00, 01, 02, 04, 06, 08 or 10
Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

| 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) |
|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 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 |
|-------------|--------------|-------------------|
| KBU600 | SIL Bridge | 400 Units/Box |
| KBU601 | SIL Bridge | 400 Units/Box |
| KBU602 | SIL Bridge | 400 Units/Box |
| KBU604 | SIL Bridge | 400 Units/Box |
| KBU606 | SIL Bridge | 400 Units/Box |
| KBU608 | SIL Bridge | 400 Units/Box |
| KBU610 | 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 Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBU600-LF.**

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Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, 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>

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