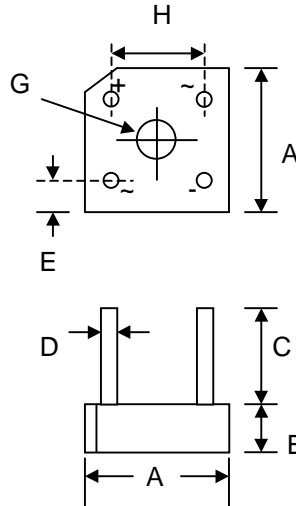


KBPC300G – KBPC310G

3.0A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has Underwriters Laboratory Flammability Classification 94V-O



| KBPC-3 | | |
|----------------------|-------------------|-------|
| Dim | Min | Max |
| A | 14.73 | 15.75 |
| B | 5.84 | 6.86 |
| C | 19.00 | — |
| D | 0.70 Ø Typical | |
| E | 1.70 | 2.72 |
| G | Hole for #6 screw | |
| | 3.60 | 4.00 |
| H | 10.30 | 11.30 |
| All Dimensions in mm | | |

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 3.8 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- 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 | KBPC 300G | KBPC 301G | KBPC 302G | KBPC 304G | KBPC 306G | KBPC 308G | KBPC 310G | 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 (Note 1) @ $T_A = 50^\circ\text{C}$ | I_O | 3.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 60 | | | | | | | A |
| Forward Voltage (per element) @ $I_F = 1.5\text{A}$ | V_{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$ | I_R | 5.0 500 | | | | | | | μA |
| I^2t Rating for Fusing ($t < 8.3\text{ms}$) (Note 2) | I^2t | 15 | | | | | | | A^2s |
| Typical Junction Capacitance (Note 3) | C_j | 21 | | | | | | | pF |
| Typical Thermal Resistance (Note 4) | $R_{\theta JC}$ | 8.0 | | | | | | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

- Note: 1. Mounted on 4.0" x 4.0" x 0.11" thick Al. plate.
 2. Non-repetitive, for $t > 1\text{ms}$ and $< 8.3\text{ms}$.
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
 4. Thermal resistance junction to case per element.

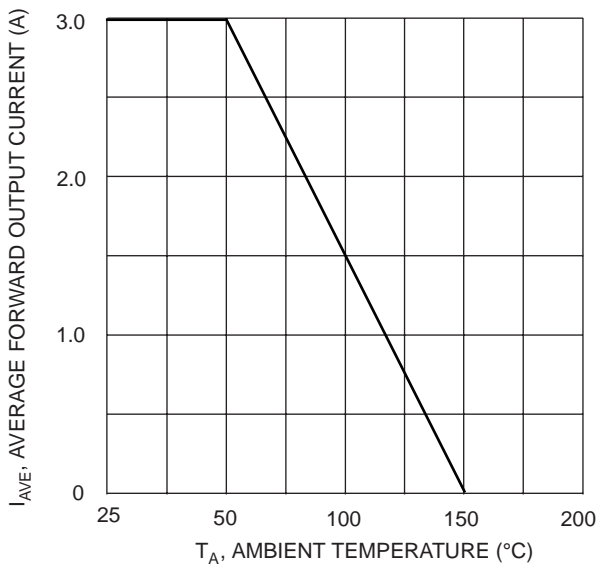


Fig. 1 Forward Current Derating Curve

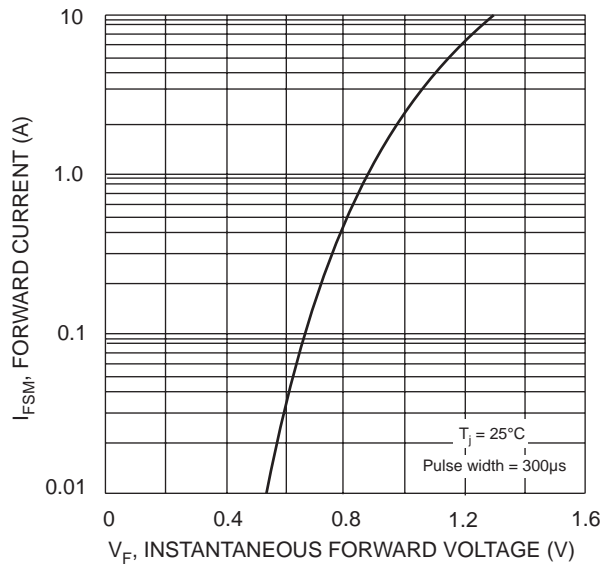


Fig. 2 Typical Forward Characteristics, per element

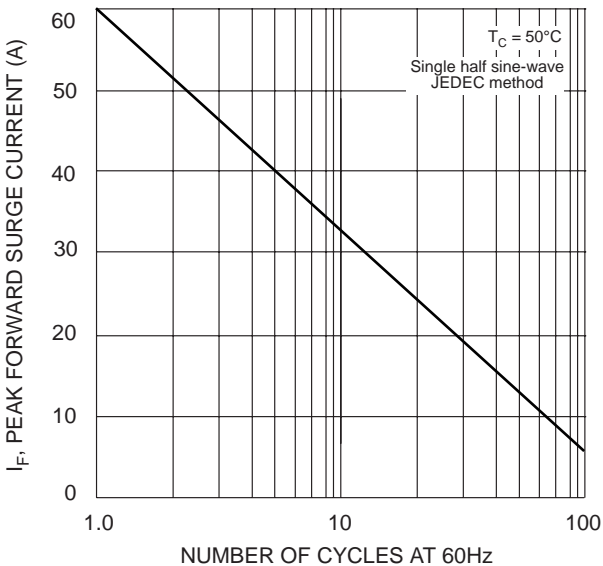


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

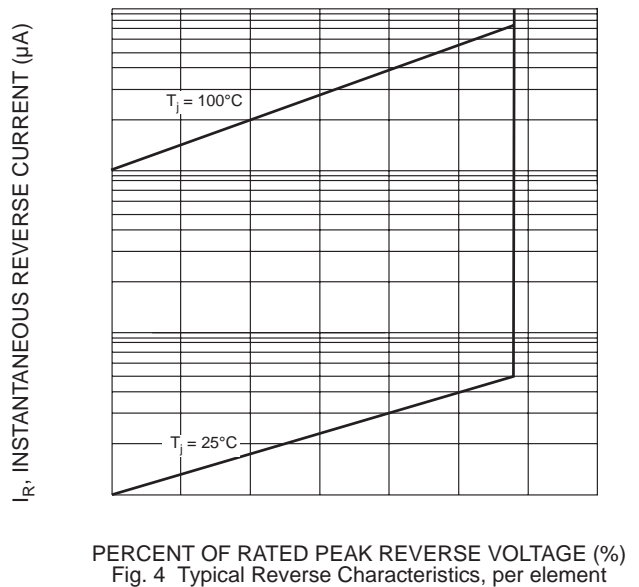


Fig. 4 Typical Reverse Characteristics, per element

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|---------------|-------------------|
| KBPC300G | Square Bridge | 200 Units/Box |
| KBPC301G | Square Bridge | 200 Units/Box |
| KBPC302G | Square Bridge | 200 Units/Box |
| KBPC304G | Square Bridge | 200 Units/Box |
| KBPC306G | Square Bridge | 200 Units/Box |
| KBPC308G | Square Bridge | 200 Units/Box |
| KBPC310G | Square Bridge | 200 Units/Box |

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.

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>

We power your everyday.