
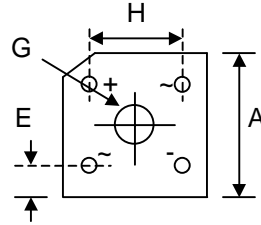


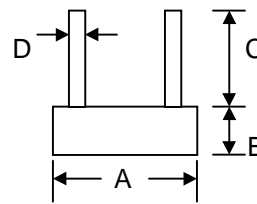
6.0A SINGLE-PHASE BRIDGE RECTIFIER

Features

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has UL Flammability 94V-0
-  Recognized File # E157705



| KBPC-6 | | |
|----------------------|-------------------|-------|
| Dim | Min | Max |
| A | 14.73 | 15.75 |
| B | 5.80 | 6.90 |
| C | 19.00 | — |
| D | 1.00 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: KBPC-6, 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: 10 cm·kg (8.8 in·lbs) Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

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 600 | KBPC 601 | KBPC 602 | KBPC 604 | KBPC 606 | KBPC 608 | KBPC 610 | 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) @ $T_C = 50^\circ\text{C}$ | 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} | 125 | | | | | | | A |
| Forward Voltage per leg @ $I_F = 3.0\text{A}$ | V_{FM} | 1.1 | | | | | | | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$ | I_R | 5.0 500 | | | | | | | μA |
| I^2t Rating for Fusing ($t < 8.3\text{ms}$) (Note 2) | I^2t | 64 | | | | | | | A^2s |
| Typical Junction Capacitance (Note 3) | C_j | 80 | | | | | | | pF |
| Typical Thermal Resistance per leg (Note 1) | $R_{\theta JC}$ | 9.5 | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +125 | | | | | | | $^\circ\text{C}$ |

- Note: 1. Mounted on metal chassis.
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.

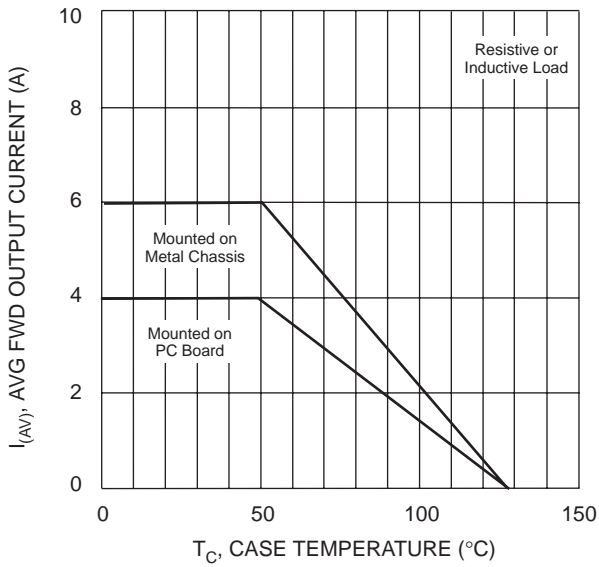


Fig. 1 Forward Current Derating Curve

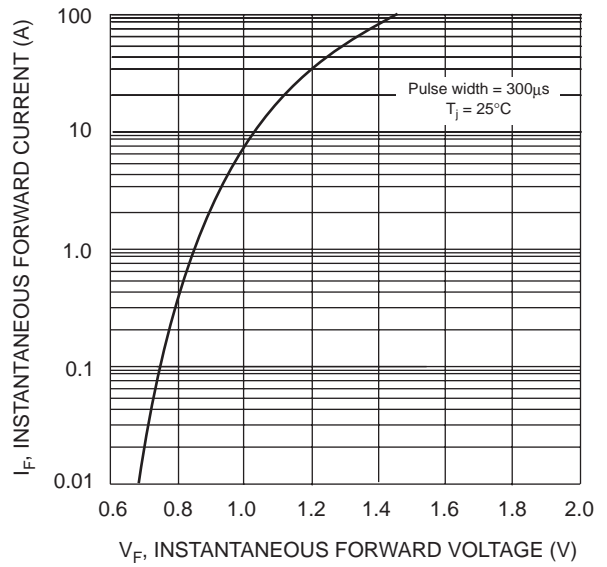


Fig. 2 Typical Forward Characteristics, per element

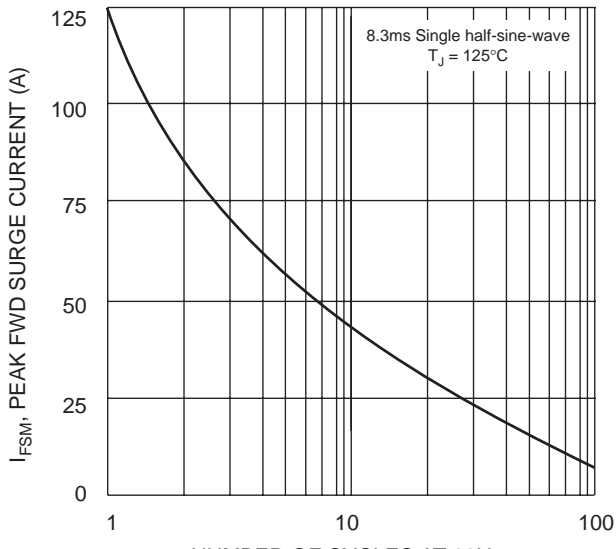


Fig. 3 Peak Forward Surge Current

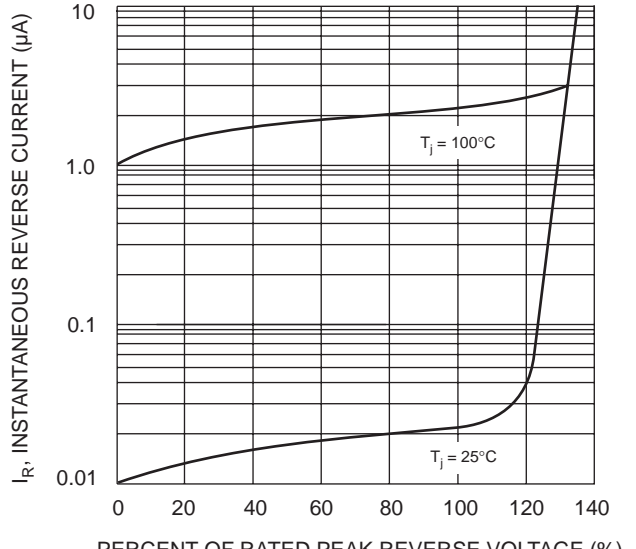
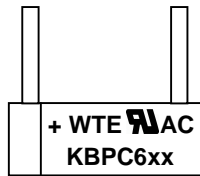


Fig. 4 Typical Reverse Characteristics

MARKING INFORMATION



WTE = Manufacturer's Logo
KBPC6xx = 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) |
|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 198 x 198 x 50 | 200 | 425 x 215 x 280 | 2,000 | 8.0 |

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

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|---------------|-------------------|
| KBPC600 | Square Bridge | 200 Units/Box |
| KBPC601 | Square Bridge | 200 Units/Box |
| KBPC602 | Square Bridge | 200 Units/Box |
| KBPC604 | Square Bridge | 200 Units/Box |
| KBPC606 | Square Bridge | 200 Units/Box |
| KBPC608 | Square Bridge | 200 Units/Box |
| KBPC610 | Square Bridge | 200 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, KBPC600-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.

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We power your everyday.