

KBPC15, 25, 35P/W SERIES

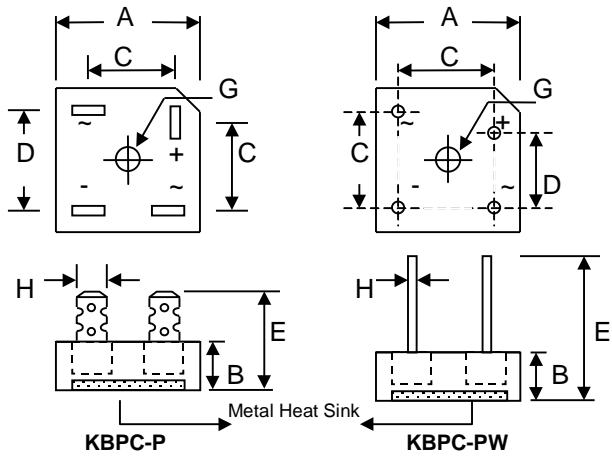
15, 25, 35A HIGH CURRENT BRIDGE RECTIFIER

Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E157705

Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC-P 24 grams (approx.)
KBPC-PW 21 grams (approx.)
- Marking: Type Number



| Dim | KBPC-P | | KBPC-PW | |
|-----|-----------------------------------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 28.40 | 28.70 | 28.40 | 28.70 |
| B | 10.97 | 11.23 | 10.97 | 11.23 |
| C | 15.70 | 16.70 | 17.10 | 19.10 |
| D | 17.50 | 18.50 | 10.90 | 11.90 |
| E | 22.86 | 25.40 | 30.50 | — |
| G | Hole for #10 screw, 5.08Ø Nominal | | | |
| H | 6.35 Typical | | 0.97Ø 1.07Ø | |

All Dimension in mm

"W" Suffix Designates Wire Leads

No Suffix Designates Faston Terminals

*All Models are Available on B(Height)=7.9mm Max. Epoxy Case

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%.

| Characteristics | Symbol | -00P/W | -01P/W | -02P/W | -04P/W | -06P/W | -08P/W | -10P/W | 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 Rectifier Output Current @ $T_C = 60^\circ\text{C}$ | I_O | | | | 15 25 35 | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method) | I_{FSM} | | | | 300 300 400 | | | | A |
| Forward Voltage Drop (per element) | V_{FM} | | | | 1.1 | | | | V |
| Peak Reverse Current At Rated DC Blocking Voltage | I_{RM} | | | | 10 0.5 | | | | μA mA |
| I^2t Rating for Fusing (t < 8.3ms) (Note 1) | I^2t | | | | 373 373 664 | | | | A^2s |

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

| | | | | |
|---|----------------------------|-----------------|-------------------|--------------------|
| Typical Junction Capacitance (per element) (Note 2) | KBPC15 KBPC25 KBPC35 | C_j | 200 300 400 | pF |
| Typical Thermal Resistance Junction to Case (per element) (Note 3) | KBPC15 KBPC25 KBPC35 | $R_{\theta JC}$ | 6.3 3.8 3.8 | K/W |
| RMS Isolation Voltage from Case to Lead | | Viso | 2500 | V |
| Operating and Storage Temperature Range | | T_j, T_{STG} | -65 to +125 | $^{\circ}\text{C}$ |

- Note: 1. Measured at non-repetitive, for $t > 1\text{ms}$ and $< 8.3\text{ms}$.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance junction to case mounted on heatsink.

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Fig. 1 Forward Current Derating Curve



Fig. 2 Typical Forward Characteristics (per element)

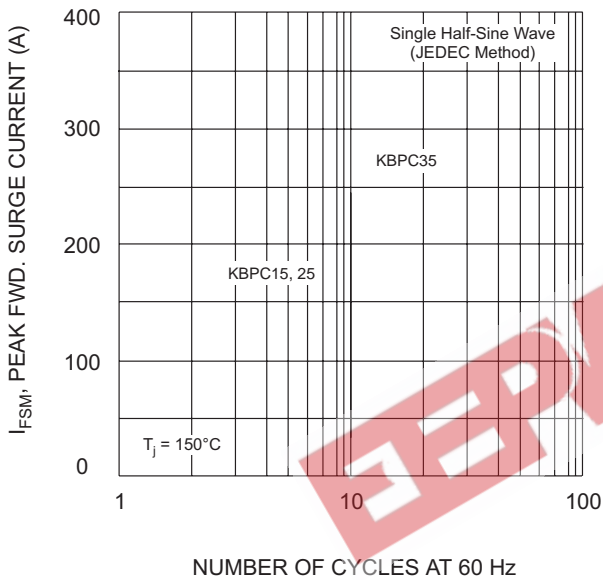


Fig. 3 Max Non-Repetitive Surge Current

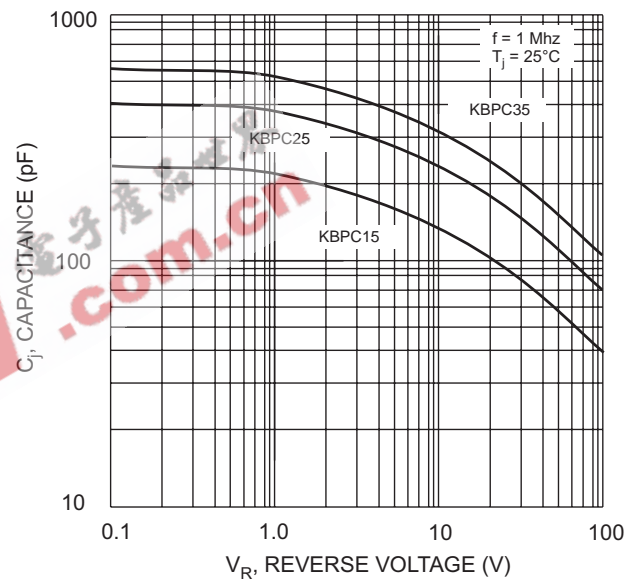


Fig. 4 Typical Junction Capacitance (per element)



Fig. 5 Typical Reverse Characteristics (per element)

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|---------------|-------------------|
| KBPCxx00P | Square Bridge | 50 Units/Box |
| KBPCxx00PW | Square Bridge | 50 Units/Box |
| KBPCxx01P | Square Bridge | 50 Units/Box |
| KBPCxx01PW | Square Bridge | 50 Units/Box |
| KBPCxx02P | Square Bridge | 50 Units/Box |
| KBPCxx02PW | Square Bridge | 50 Units/Box |
| KBPCxx04P | Square Bridge | 50 Units/Box |
| KBPCxx04PW | Square Bridge | 50 Units/Box |
| KBPCxx06P | Square Bridge | 50 Units/Box |
| KBPCxx06PW | Square Bridge | 50 Units/Box |
| KBPCxx08P | Square Bridge | 50 Units/Box |
| KBPCxx08PW | Square Bridge | 50 Units/Box |
| KBPCxx10P | Square Bridge | 50 Units/Box |
| KBPCxx10PW | Square Bridge | 50 Units/Box |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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