

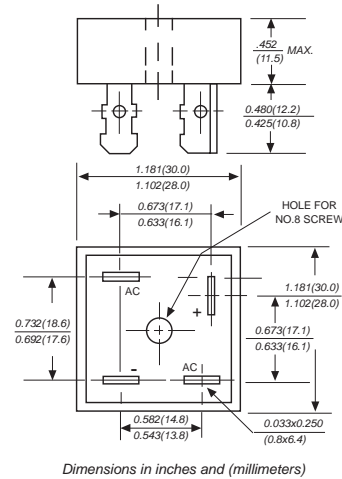
# KBPC40, 50 SERIES

## Features

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

## Mechanical Data

- Case: Metal Case with Electrically Isolated Epoxy
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC 31.6 grams (approx.)
- Marking: Type Number



## Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

| Characteristics   | Symbol              | -00 | -01 | -02 | -04 | -06 | -08 | -10  | Unit |
|---|---------------------|-----|-----|-----|-----|-----|-----|------|------|
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>    |     |     |     |     |     |     |      |      |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>    | 50  | 100 | 200 | 400 | 600 | 800 | 1000 | V    |
| DC Blocking Voltage   | V <sub>R</sub>      |     |     |     |     |     |     |      |      |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub> | 35  | 70  | 140 | 280 | 420 | 560 | 700  | V    |
| Average Rectifier Output Current<br>@T <sub>C</sub> = 55°C  | I <sub>O</sub>      |     |     |     | 40  |     |     |      | A    |
|   |                     |     |     |     | 50  |     |     |      |      |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>    |     |     |     | 400 |     |     |      | A    |
|   |                     |     |     |     | 400 |     |     |      |      |
| Forward Voltage Drop (per element)  | V <sub>FM</sub>     |     |     |     | 1.2 |     |     |      | V    |
|   |                     |     |     |     |     |     |     |      |      |
| Peak Reverse Current  | I <sub>RM</sub>     |     |     |     | 10  |     |     |      | μA   |
| At Rated DC Blocking Voltage  |                     |     |     |     | 1.0 |     |     |      | mA   |

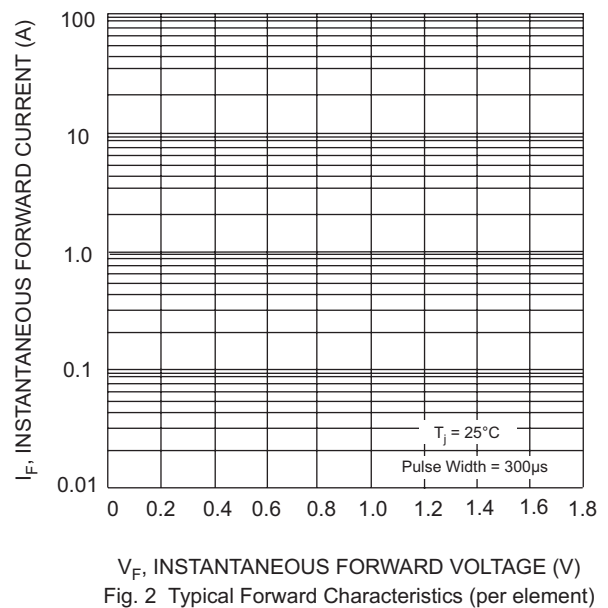
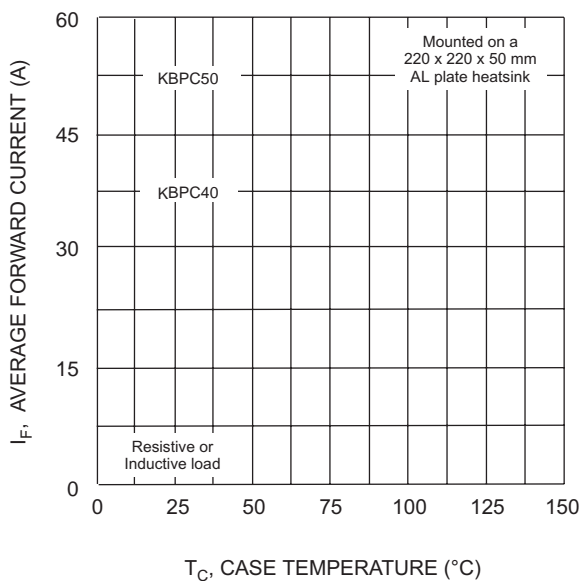
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## Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

|   |                                   |             |     |
|---|-----------------------------------|-------------|-----|
| Typical Junction Capacitance (per element)<br>(Note 1)                | C <sub>j</sub>                    | 300         | pF  |
| Typical Thermal Resistance Junction<br>to Case (per element) (Note 2) | R <sub>θJC</sub>                  | 1.5         | K/W |
| RMS Isolation Voltage from Case to Lead                               | V <sub>ISO</sub>                  | 2500        | V   |
| Operating and Storage Temperature Range                               | T <sub>J</sub> , T <sub>STG</sub> | -65 to +150 | °C  |

\* Glass passivated forms are available upon request.

- Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to case mounted on heatsink.



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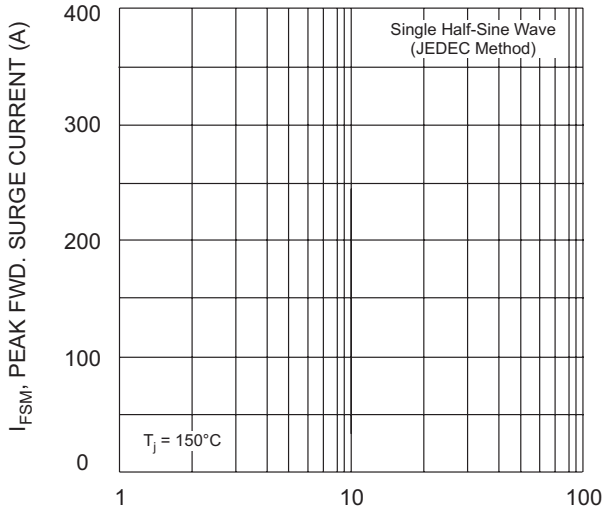


Fig. 3 Max Non-Repetitive Surge Current

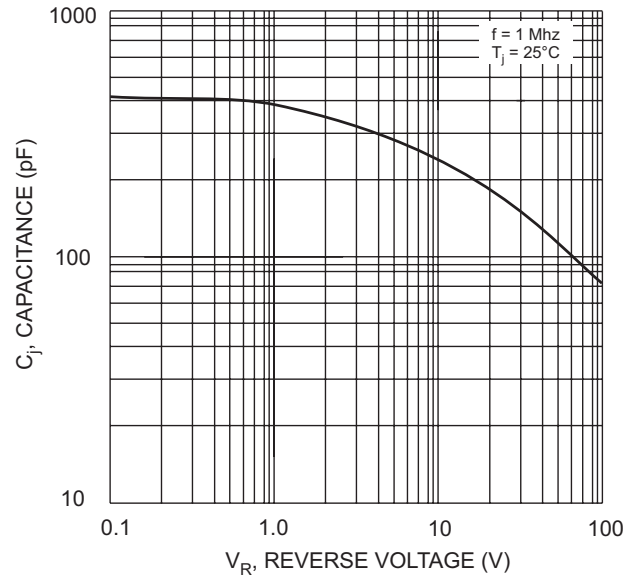


Fig. 4 Typical Junction Capacitance (per element)

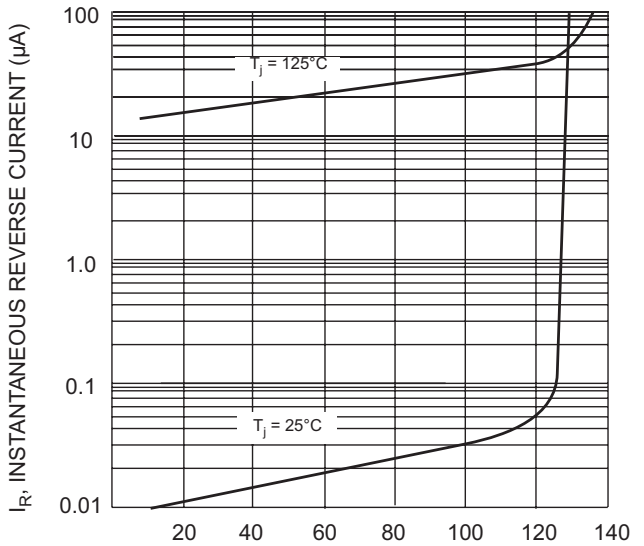


Fig. 5 Typical Reverse Characteristics (per element)