



Micro Commercial Components



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# KBP005M THRU KBP10M

## Features

- UL Recognized File # E165989
- Marking : type number
- Glass Passivated Die Construction
- High Surge Current Capabilit
- Case Material: Molded Plastic.UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 3)("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

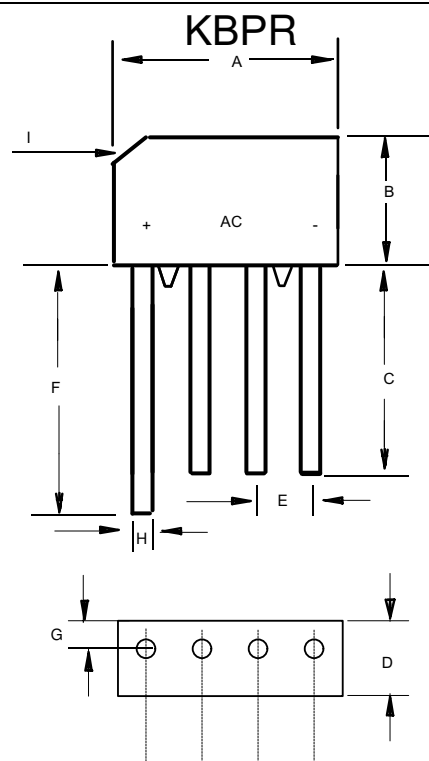
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| KBP005M         | 50V                                    | 35V                 | 50V                         |
| KBP01M          | 100V                                   | 70V                 | 100V                        |
| KBP02M          | 200V                                   | 140V                | 200V                        |
| KBP04M          | 400V                                   | 280V                | 400V                        |
| KBP06M          | 600V                                   | 420V                | 600V                        |
| KBP08M          | 800V                                   | 560V                | 800V                        |
| KBP10M          | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                           |  |
|---|-------------|---------------------------|--|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.5A                      | $T_a = 50^\circ\text{C}$<br>Note1                            |
| Peak Forward Surge Current                              | $I_{FSM}$   | 50A                       | 8.3ms, half sine   |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.1V                      | $I_F = 1.5\text{A}$ per element;<br>$T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu\text{A}$<br>0.5mA | $T_a = 25^\circ\text{C}$<br>$T_a = 100^\circ\text{C}$        |
| Typical Junction Capacitance per element                | $C_j$       | 15PF                      | Measured at 1MHZ,<br>VR=4V(DC)                               |
| Typical Thermal Resistance                              | Rthja       | 28 K/W                    | Note2  |

- Note: 1. Leads maintained at ambient temp. at a distance of 9.5mm from the case  
 2. Mounted on PC board with 12mm<sup>2</sup> copper pad  
 3. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

## 1.5 Amp Glass Passivated Bridge Rectifier 50 to 1000 Volts



| DIM | DIMENSION |      |        |       | NOTE |
|-----|-----------|------|--------|-------|------|
|     | INCHES    |      | MM     |       |      |
|     | MIN       | MAX  | MIN    | MAX   |      |
| A   | .560      | .600 | 14.32  | 15.24 |      |
| B   | .420      | .460 | 10.70  | 11.70 |      |
| C   | .500      | ---  | 12.70  | ---   |      |
| D   | .132      | .144 | 3.35   | 3.65  |      |
| E   | .140      | .160 | 3.60   | 4.10  |      |
| F   | .600      | ---  | 15.24  | ---   |      |
| G   | .035      | .047 | 0.90   | 1.20  |      |
| H   | .028      | .034 | 0.76   | 0.86  |      |
| I   | 0.12X45   |      | 3.0X45 |       |      |

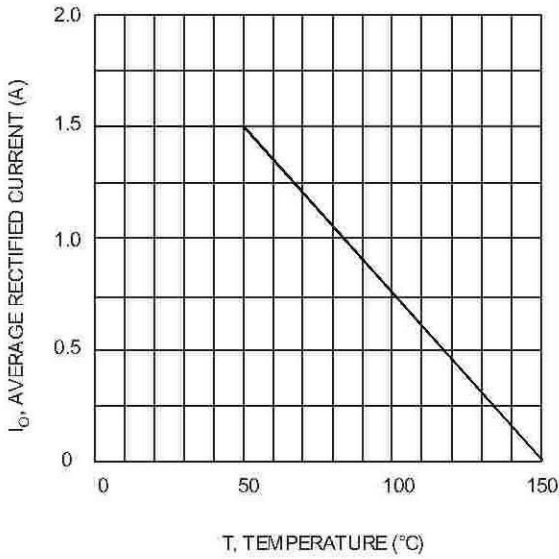


Fig. 1 Forward Current Derating Curve

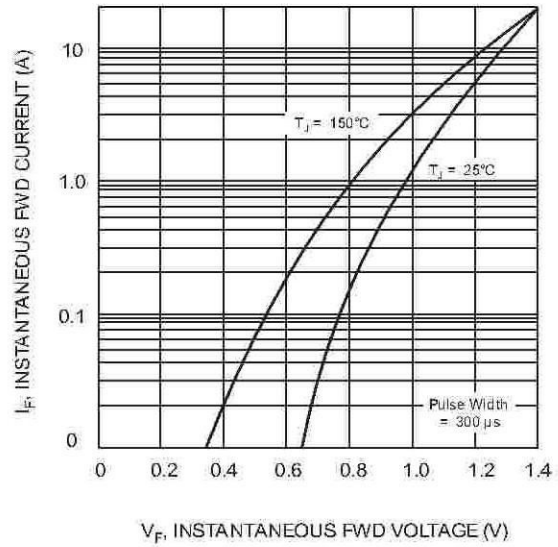


Fig. 2 Typical Fwd Characteristics

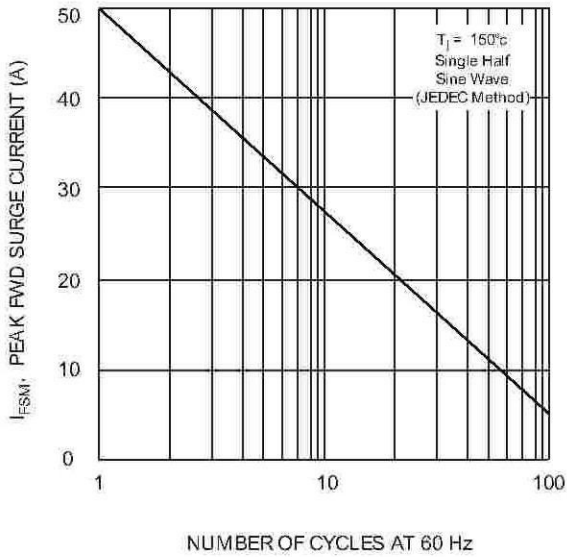


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

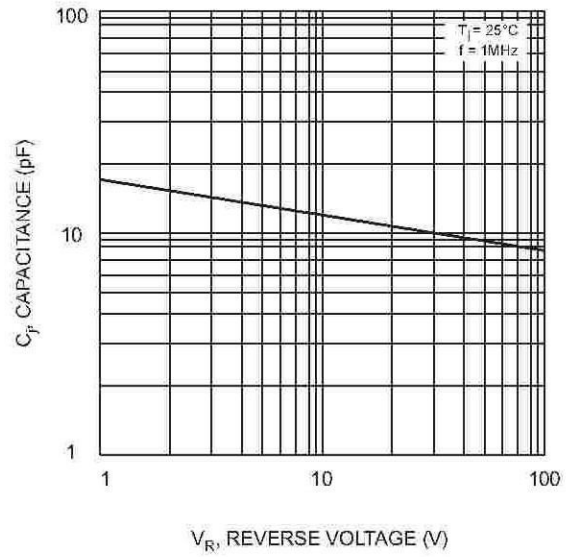


Fig. 4 Typical Junction Capacitance

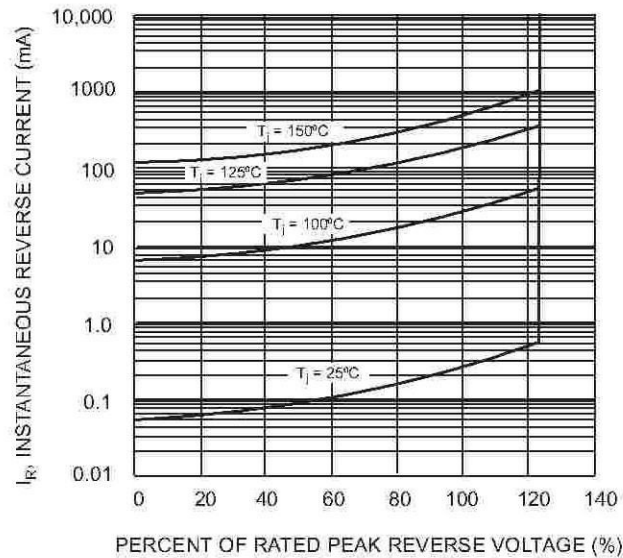


Fig. 5 Typical Reverse Characteristics



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### Ordering Information

|                  |                |
|------------------|----------------|
| Device           | Packing        |
| (Part Number)-BP | Bulk;5Kpcs/Ctn |

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