



Micro Commercial Components
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KBPC1000S THRU KBPC1010S

Features

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space

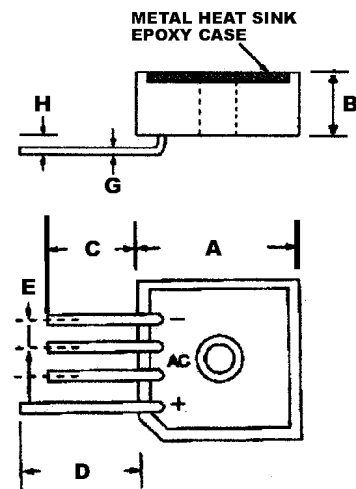
Maximum Ratings

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

| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| KBPC1000S | KBPC1000S | 50V | 35V | 50V |
| KBPC1001S | KBPC1001S | 100V | 70V | 100V |
| KBPC1002S | KBPC1002S | 200V | 140V | 200V |
| KBPC1004S | KBPC1004S | 400V | 280V | 400V |
| KBPC1006S | KBPC1006S | 600V | 420V | 600V |
| KBPC1008S | KBPC1008S | 800V | 560V | 800V |
| KBPC1010S | KBPC1010S | 1000V | 700V | 1000V |

10 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

KBPC



Electrical Characteristics @ 25°C Unless Otherwise Specified

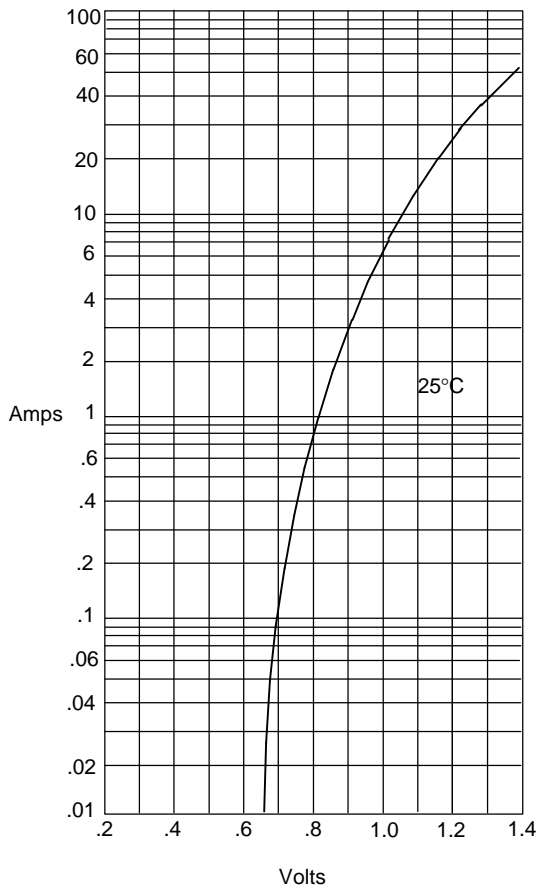
| | | | |
|---|-------------|---------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 10.0A | $T_A = 50^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 200A | 8.3ms, half sine |
| Maximum Forward Voltage Drop Per Element | V_F | 1.2V | $I_{FM} = 5.0\text{A}$ per element; $T_A = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μA 1.0mA | $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 1.12 | 1.13 | 28.40 | 28.70 | |
| B | .432 | .442 | 10.97 | 11.23 | |
| C | .547 | --- | 13.90 | --- | |
| D | .752 | --- | 19.10 | --- | |
| E | .201 | --- | 5.10 | --- | |
| G | .047 | --- | 1.20 | --- | ∅ |
| H | .120 | .142 | 3.05 | 3.60 | |

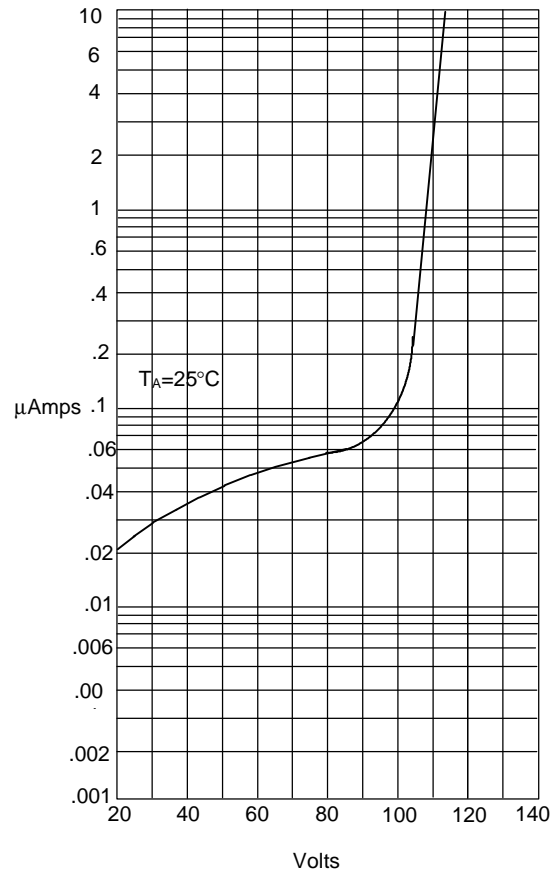
KBPC1000S thru KBPC1010S

Figure 1
Typical Forward Characteristics



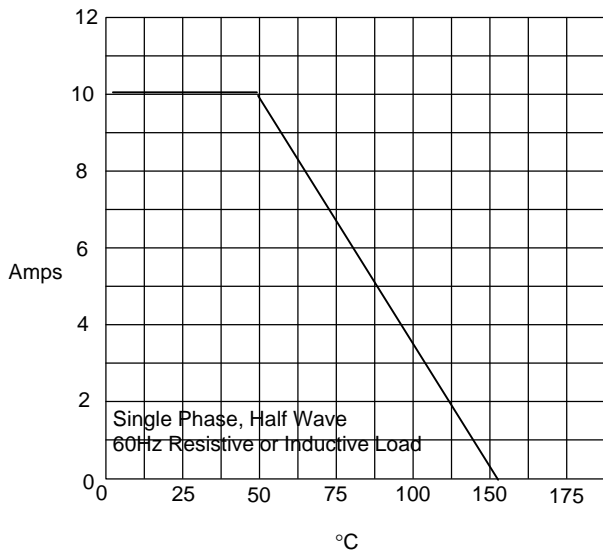
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



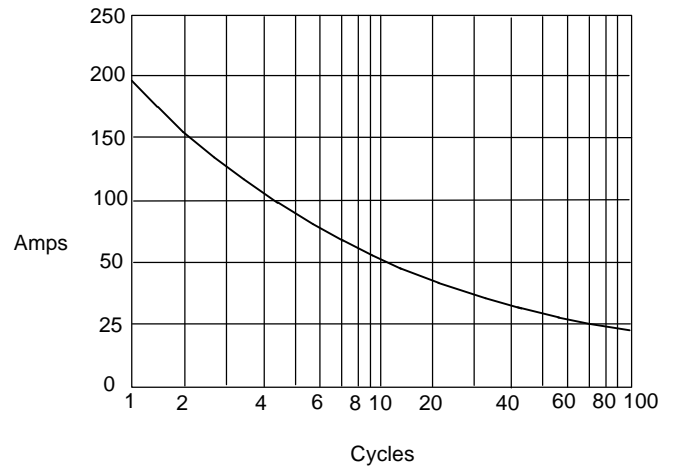
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles