

# KBPC 1000FW ... KBPC 1016FW



## Square bridge

## Silicon-Bridge Rectifiers

KBPC 1000F/W ... KBPC 1016F/W

Forward Current: 10 A

Reverse Voltage: 50 to 1600 V

Publish Data

### Features

- max. solder temperature 260°C, max. 5s
- UL recognized, file no. E63532
- Standard packaging: bulk
- $V_{ISO} > 2500 \text{ V}$

### Mechanical Data

- Plastic case with alu-bottom 28,6 \* 28,6 \* 7,3 [mm]
- Weight approx. 18 g
- Terminals: plated terminals solderable per IEC 68-2-20
- Mounting position: any
- Admissible torque for mounting (M 5): 2 ( $\pm 10 \%$ ) Nm
- W - wire
- F - faston

| Type          | Alternating input voltage<br>$V_{RMS}$<br>V | Repetitive peak reverse voltage<br>$V_{RRM}$<br>V |
|---------------|---------------------------------------------|---------------------------------------------------|
| KBPC 1000 F/W | 35                                          | 50                                                |
| KBPC 1001 F/W | 70                                          | 100                                               |
| KBPC 1002 F/W | 140                                         | 200                                               |
| KBPC 1004 F/W | 280                                         | 400                                               |
| KBPC 1006 F/W | 420                                         | 600                                               |
| KBPC 1008 F/W | 560                                         | 800                                               |
| KBPC 1010 F/W | 700                                         | 1000                                              |
| KBPC 1012 F/W | 800                                         | 1200                                              |
| KBPC 1014 F/W | 900                                         | 1400                                              |
| KBPC 1016 F/W | 1000                                        | 1600                                              |

### Absolute Maximum Ratings $T_c = 25^\circ\text{C}$ unless otherwise specified

| Symbol    | Conditions                                                                   | Values         | Units            |
|-----------|------------------------------------------------------------------------------|----------------|------------------|
| $I_{FRM}$ | Repetitive peak forward current; $f > 15 \text{ Hz}^{1)}$                    | 50             | A                |
| $I^2t$    | Rating for fusing, $t < 10 \text{ ms}$                                       | 166            | A <sup>2</sup> s |
| $I_{FSM}$ | Peak forward surge current, 50 Hz half sine-wave<br>$T_A = 25^\circ\text{C}$ | 200            | A                |
| $I_{FAV}$ | Max. averaged fwd. current, R-load, $T_A = 50^\circ\text{C}^{1)}$            | not applicable | A                |
| $I_{FAV}$ | Max. averaged fwd. current, C-load, $T_A = 50^\circ\text{C}^{1)}$            | not applicable | A                |
| $I_{FAV}$ | Max. current with cooling fin, R-load, $T_c = 100^\circ\text{C}^{2)}$        | 10             | A                |
| $I_{FAV}$ | Max. current with cooling fin, C-load, $T_c = 100^\circ\text{C}^{2)}$        | 8              | A                |
| $R_{thA}$ | Thermal resistance junction to ambient <sup>1)</sup>                         |                | K/W              |
| $R_{thC}$ | Thermal resistance junction to case <sup>1)</sup>                            | 3              | K/W              |
| $T_j$     | Operating junction temperature                                               | - 50 ... + 150 | °C               |
| $T_s$     | Storage temperature                                                          | - 50 ... + 150 | °C               |

### Characteristics $T_c = 25^\circ\text{C}$ unless otherwise specified

| Symbol | Conditions                                                                  | Values | Units         |
|--------|-----------------------------------------------------------------------------|--------|---------------|
| $V_F$  | Maximum forward. voltage,<br>$T_j = 25^\circ\text{C}$ ; $I_F = 5 \text{ A}$ | 1,2    | V             |
| $I_R$  | Maximum Leakage current,<br>$T_j = 25^\circ\text{C}$ ; $V_R = V_{RRM}$      | 25     | $\mu\text{A}$ |
| $C_j$  | Typical junction capacitance per leg at V, MHz                              |        | pF            |



