

## Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 1000\text{ V}$

$I_F = 25\text{ A}$

### Features

- High efficiency
- Types up to 1000 V  $V_{RRM}$
- Silicon junction
- Metal case

KBPC-T/W Package

### Mechanical Data

Case: Mounted in the bridge encapsulation

Mounting position: Hole for #10 screw

Polarity: Marked on case



**Maximum ratings, at  $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified (KBPCXXXXT uses KBPC-T package while KBPCXXXXW uses KBPC-W package)**

| Parameter  | Symbol     | Conditions   | KBPC2506T/W | KBPC2508T/W | KBPC2510T/W | Unit             |
|--|------------|--|-------------|-------------|-------------|------------------|
| Repetitive peak reverse voltage                      | $V_{RRM}$  |  | 600         | 800         | 1000        | V                |
| RMS reverse voltage                                  | $V_{RMS}$  |  | 420         | 560         | 700         | V                |
| DC blocking voltage                                  | $V_{DC}$   |  | 600         | 800         | 1000        | V                |
| Continuous forward current                           | $I_F$      | $T_C \leq 55\text{ }^\circ\text{C}$                      | 25          | 25          | 25          | A                |
| Surge non-repetitive forward current, Half Sine Wave | $I_{F,SM}$ | $T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$ | 350         | 350         | 350         | A                |
| Operating temperature                                | $T_j$      |  | -55 to 150  | -55 to 150  | -55 to 150  | $^\circ\text{C}$ |
| Storage temperature                                  | $T_{stg}$  |  | -55 to 150  | -55 to 150  | -55 to 150  | $^\circ\text{C}$ |

### Electrical characteristics, at $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified

| Parameter             | Symbol | Conditions  | KBPC2506T/W | KBPC2508T/W | KBPC2510T/W | Unit          |
|-----------------------|--------|---|-------------|-------------|-------------|---------------|
| Diode forward voltage | $V_F$  | $I_F = 12.5\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$  | 1.1         | 1.1         | 1.1         | V             |
| Reverse current       | $I_R$  | $V_R = 50\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$<br>$V_R = 50\text{ V}$ , $T_j = 100\text{ }^\circ\text{C}$ | 5<br>500    | 5<br>500    | 5<br>500    | $\mu\text{A}$ |

### Thermal characteristics

| Parameter                           | Symbol     | Conditions | KBPC2506T/W | KBPC2508T/W | KBPC2510T/W | Unit               |
|-------------------------------------|------------|------------|-------------|-------------|-------------|--------------------|
| Thermal resistance, junction - case | $R_{thJC}$ |            | 1.9         | 1.9         | 1.9         | $^\circ\text{C/W}$ |

