



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Single Phase Silicon Bridge Rectifier

$V_{RRM} = 600\text{ V} - 1000\text{ V}$
 $I_O = 35\text{ A}$

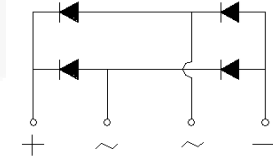
Features

- High efficiency
- Silicon junction
- Metal case
- Types from 600 V to 1000 V V_{RRM}
- Not ESD Sensitive

Mechanical Data

Case: Mounted in the bridge encapsulation
 Mounting: Hole for #10 screw
 Polarity: Marked on case

KBPC-T/W Package



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

| Parameter | Symbol | Conditions | KBPC3506T/W | KBPC3508T/W | KBPC3510T/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 |
| 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 $T_c = 25\text{ }^\circ\text{C}$, unless otherwise specified

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

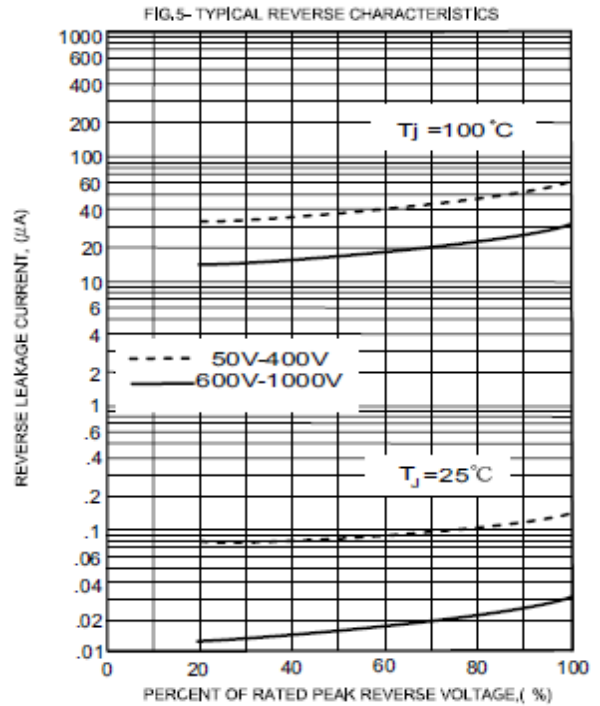
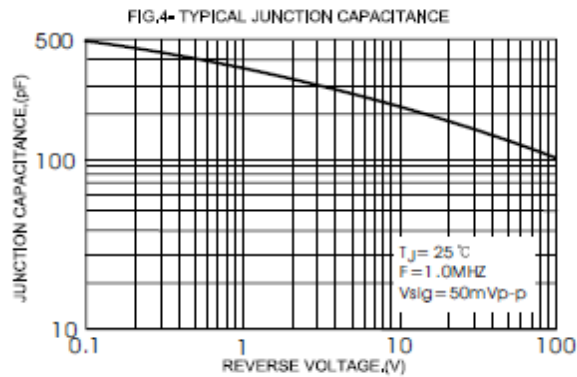
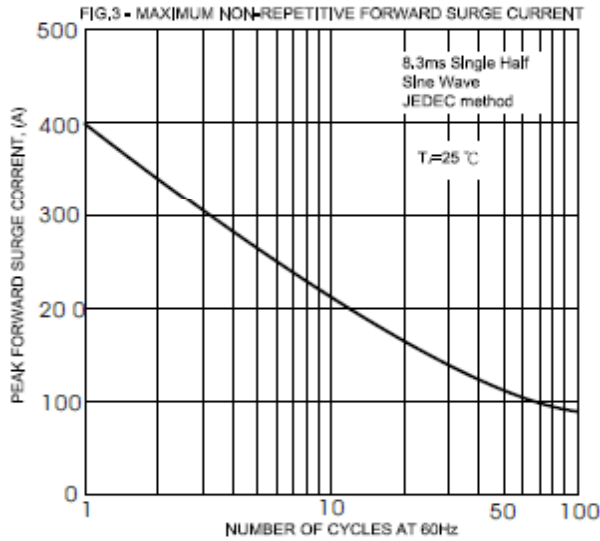
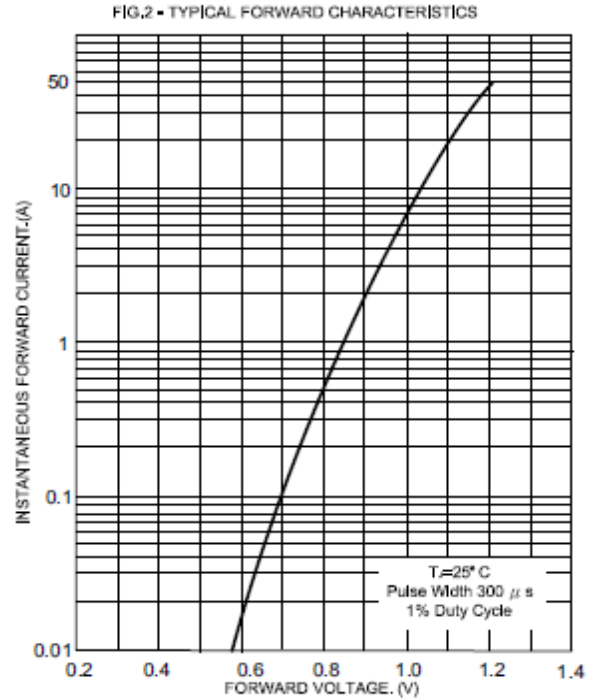
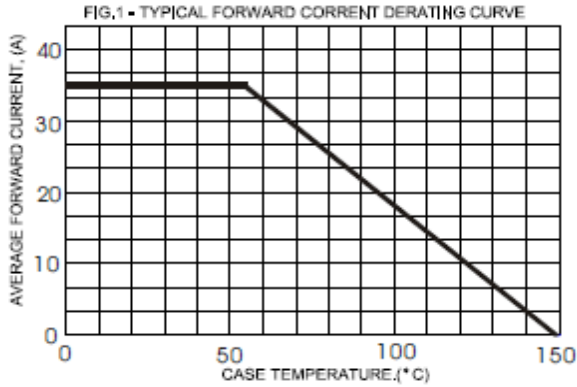
| Parameter | Symbol | Conditions | KBPC3506T/W | KBPC3508T/W | KBPC3510T/W | Unit |
|---|-----------|---|-------------|-------------|-------------|---------------|
| Maximum average forward rectified current | I_O | $T_c = 55\text{ }^\circ\text{C}$ | 35 | 35 | 35 | A |
| Peak forward surge current | I_{FSM} | 8.3 ms half sine-wave | 400 | 400 | 400 | A |
| Maximum instantaneous forward voltage per leg | V_F | $I_F = 17.5\text{ A}$ | 1.1 | 1.1 | 1.1 | V |
| Maximum DC reverse current at rated DC blocking voltage per leg | I_R | $T_c = 25\text{ }^\circ\text{C}$ $T_c = 100\text{ }^\circ\text{C}$ | 5 500 | 5 500 | 5 500 | μA |
| Typical junction capacitance ¹ | C_j | | 300 | 300 | 300 | pF |

Thermal characteristics

| | | | | | | |
|---|-----------------|--|-----|-----|-----|--------------------|
| Typical thermal resistance ² | $R_{\theta JC}$ | | 1.4 | 1.4 | 1.4 | $^\circ\text{C/W}$ |
|---|-----------------|--|-----|-----|-----|--------------------|

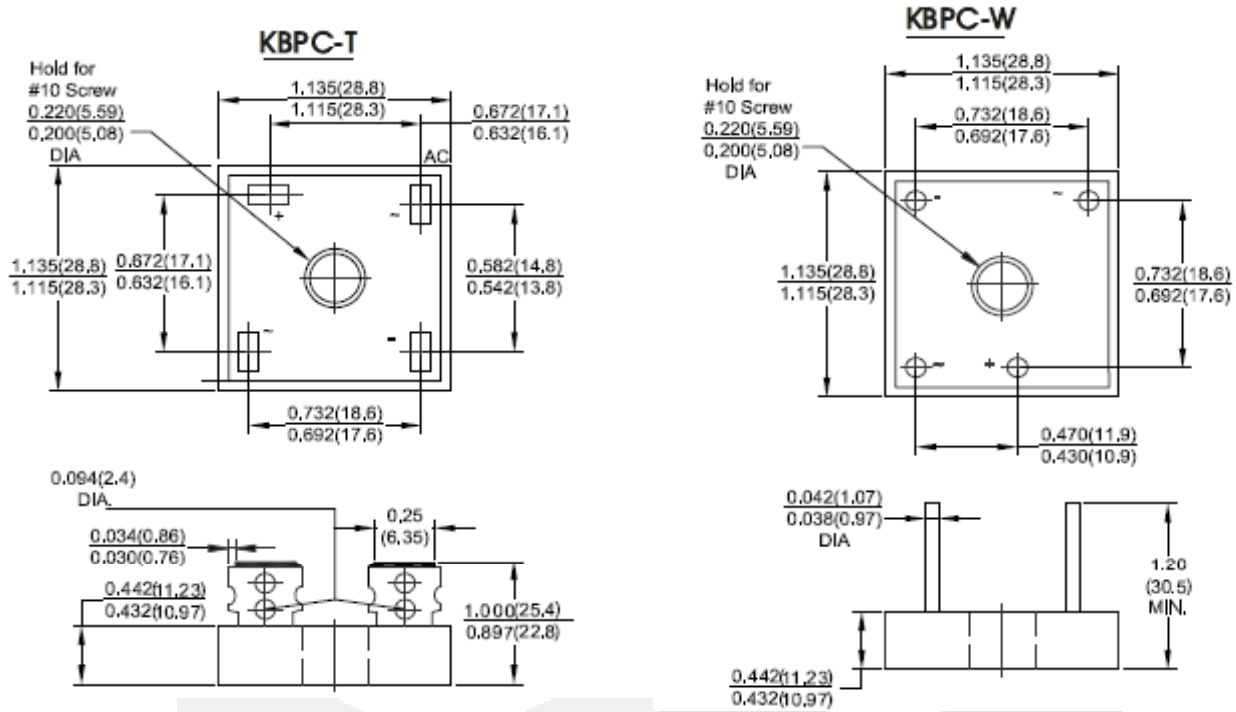
¹ - Measured at 1 MHz and applied reverse voltage of 4.0 V D.C.

² - Device mounted on 300 mm x 300 mm x 1.6 mm Cu plate heatsink



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



Dimensions in inches and (millimeters)

