# mail

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

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# KBPC15005T/W thru KBPC1504T/W

## Single Phase Silicon Bridge Rectifier

### V<sub>RRM</sub> = 50 V - 400 V I<sub>O</sub> = 15 A

#### Features

- High efficiency
- Silicon junction
- Metal case
- Types from 50 V to 400 V  $V_{RRM}$
- Not ESD Sensitive

#### **Mechanical Data**

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



Maximum ratings at Tc = 25 °C, u	nless otherwise	specified (KBPC)	XXXT uses KBF	PC-T package	while KBPCXXXXW
uses KBPC-W package)					

Parameter	Symbol	Conditions P	(BPC15005T/W	KBPC1501T/W	KBPC1502T/W	KBPC1504T/W	Unit
Repetitive peak reverse v	oltage V <sub>RRM</sub>		50	100	200	400	V
RMS reverse voltage	V <sub>RMS</sub>		35	70	140	280	V
DC blocking voltage	V <sub>DC</sub>		50	100	200	400	V
Operating temperature	Tj		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T <sub>stg</sub>		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

#### Electrical characteristics at Tc = 25 °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	KBPC15005T/W	KBPC1501T/W	KBPC1502T/W	KBPC1504T/W	Unit
Maximum average forward rectified current	Ι <sub>ο</sub>	T <sub>c</sub> = 55 °C	15	15	15	15	А
Peak forward surge current	I <sub>FSM</sub>	8.3 ms half sine-wave	300	300	300	300	А
Maximum instantaneous forward voltage per leg	$V_{F}$	I <sub>F</sub> = 7.5 A	1.1	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	T <sub>c</sub> = 25 °C	5	5	5	5	μA
		T <sub>c</sub> = 100 °C	500	500	500	500	
Typical junction capacitance <sup>1</sup>	Cj		300	300	300	300	pF
Thermal characteristics							
Typical thermal resistance <sup>2</sup>	$R_{\Theta JC}$		2.3	2.3	2.3	2.3	°C/W

<sup>1</sup> - Measured ay 1 MHz and applied reverse voltage of 4.0 V D.C.

<sup>2</sup> - Device mounted on 300 mm x 300 mm x 1.6 mm Cu plate heatsink



# KBPC15005T/W thru KBPC1504T/W









FIG.5- TYPICAL REVERSE CHARACTERISTICS



REVERSE LEAKAGE CURRENT, (µA)



#### Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

