

## Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
-  Recognized File # E157705

## Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (KBPC-P); 18 grams (KBPC-PW)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



Dim	KBPC-P Low Profile / Standard		KBPC-PW Low Profile / Standard	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	7.50 / 10.97	8.50 / 11.23	7.50 / 10.97	8.50 / 11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.50 / 22.86	23.50 / 25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø

All Dimension in mm

## Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

Characteristic	Symbol	KBPC25										Unit	
		00P	01P	02P	04P	06P	08P	10P	12P	14P	16P		
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>												V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	1200	1400	1600		V
DC Blocking Voltage	V <sub>R</sub>												V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	840	980	1120		V
Average Rectified Output Current @T <sub>A</sub> = 60°C	I <sub>O</sub>	25										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300										A	
Forward Voltage per leg @I <sub>F</sub> = 12.5A	V <sub>FM</sub>	1.1										V	
Peak Reverse Current @T <sub>C</sub> = 25°C At Rated DC Blocking Voltage @T <sub>C</sub> = 125°C	I <sub>RM</sub>	10										μA	
		500											
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	373										A <sup>2</sup> s	
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	300										pF	
Typical Thermal Resistance per leg (Note 2)	R <sub>θJC</sub>	2.6										°C/W	
RMS Isolation Voltage from Case to Leads	V <sub>ISO</sub>	2500										V	
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150										°C	

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to case, mounted on heatsink.



Fig. 1 Forward Current Derating Curve

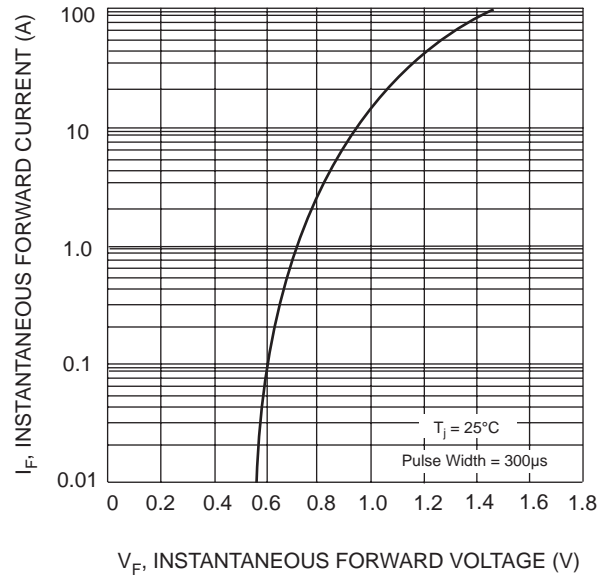


Fig. 2 Typical Forward Characteristics (per element)



Fig. 3 Max Non-Repetitive Surge Current

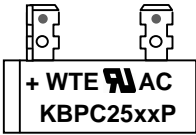
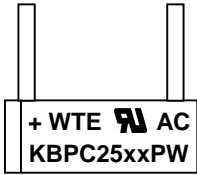


Fig. 4 Typical Junction Capacitance (per element)



Fig. 5 Typical Reverse Characteristics (per element)

## MARKING INFORMATION

<p><b>KBPC-P</b></p>  <p>WTE = Manufacturer's Logo          KBPC25xxP = Device Number          xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16          Polarity = As Marked on Body</p>	<p><b>KBPC-PW</b></p>  <p>WTE = Manufacturer's Logo          KBPC25xxPW = Device Number          xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16          Polarity = As Marked on Body</p>
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## PACKAGING INFORMATION

**BULK**

Case Style	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>KBPC-P</b>	195 x 195 x 40	50	405 x 205 x 240	500	12.0
<b>KBPC-PW</b>	195 x 195 x 40	50	405 x 205 x 240	500	11.0

**Note:** 1. Paper box, white or brown color.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC2500P	Square Bridge	50 Units/Box
KBPC2500PW	Square Bridge	50 Units/Box
KBPC2501P	Square Bridge	50 Units/Box
KBPC2501PW	Square Bridge	50 Units/Box
KBPC2502P	Square Bridge	50 Units/Box
KBPC2502PW	Square Bridge	50 Units/Box
KBPC2504P	Square Bridge	50 Units/Box
KBPC2504PW	Square Bridge	50 Units/Box
KBPC2506P	Square Bridge	50 Units/Box
KBPC2506PW	Square Bridge	50 Units/Box
KBPC2508P	Square Bridge	50 Units/Box
KBPC2508PW	Square Bridge	50 Units/Box
KBPC2510P	Square Bridge	50 Units/Box
KBPC2510PW	Square Bridge	50 Units/Box
KBPC2512P	Square Bridge	50 Units/Box
KBPC2512PW	Square Bridge	50 Units/Box
KBPC2514P	Square Bridge	50 Units/Box
KBPC2514PW	Square Bridge	50 Units/Box
KBPC2516P	Square Bridge	50 Units/Box
KBPC2516PW	Square Bridge	50 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC2500P-LF.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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