
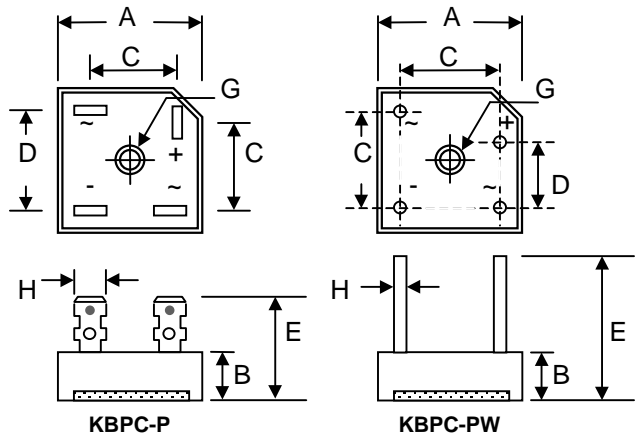


### Features

- 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

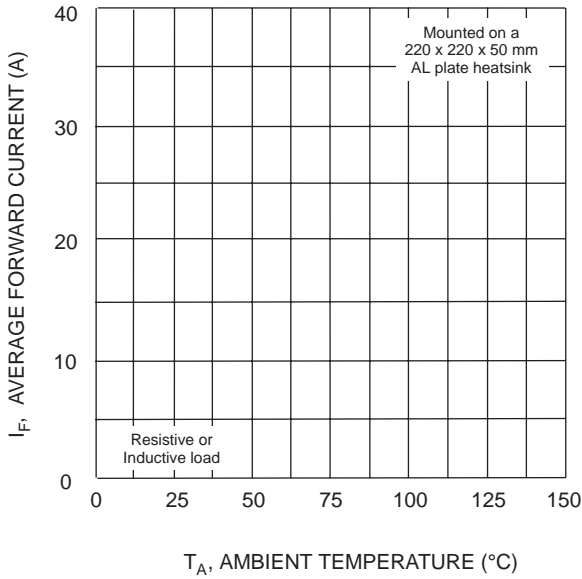
All Dimension in mm

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

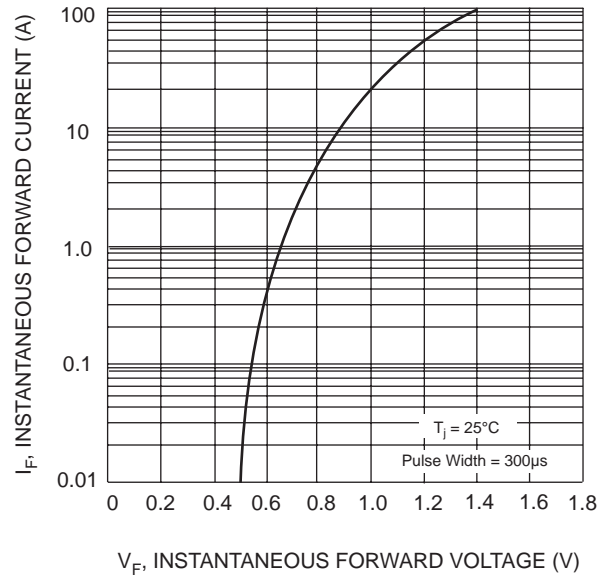
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	KBPC40										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		
DC Blocking Voltage	V <sub>R</sub>												
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>	40										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400										A	
Forward Voltage per leg @I <sub>F</sub> = 20A	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	664										A <sup>2</sup> s	
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	400										pF	
Typical Thermal Resistance per leg (Note 2)	R <sub>θJC</sub>	2.1										°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.



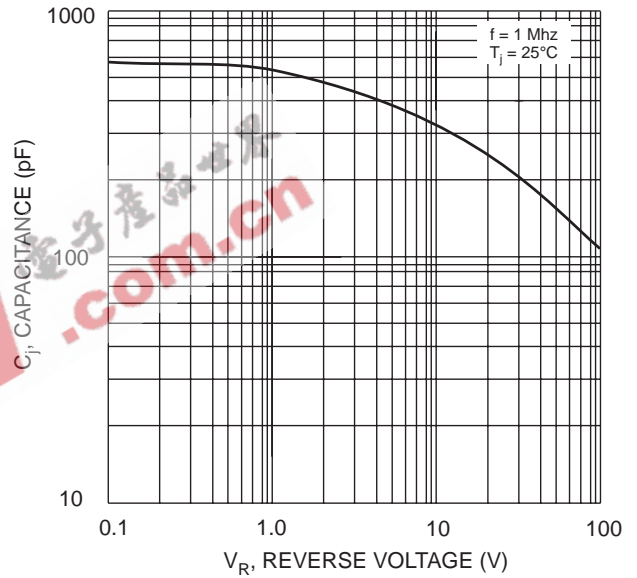
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Max Non-Repetitive Surge Current

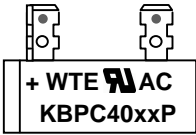
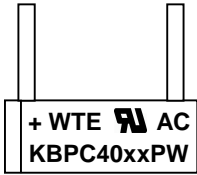


$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 5 Typical Reverse Characteristics (per element)

## MARKING INFORMATION

<p><b>KBPC-P</b></p>  <p>WTE = Manufacturer's Logo          KBPC40xxP = 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          KBPC40xxPW = 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
KBPC4000P	Square Bridge	50 Units/Box
KBPC4000PW	Square Bridge	50 Units/Box
KBPC4001P	Square Bridge	50 Units/Box
KBPC4001PW	Square Bridge	50 Units/Box
KBPC4002P	Square Bridge	50 Units/Box
KBPC4002PW	Square Bridge	50 Units/Box
KBPC4004P	Square Bridge	50 Units/Box
KBPC4004PW	Square Bridge	50 Units/Box
KBPC4006P	Square Bridge	50 Units/Box
KBPC4006PW	Square Bridge	50 Units/Box
KBPC4008P	Square Bridge	50 Units/Box
KBPC4008PW	Square Bridge	50 Units/Box
KBPC4010P	Square Bridge	50 Units/Box
KBPC4010PW	Square Bridge	50 Units/Box
KBPC4012P	Square Bridge	50 Units/Box
KBPC4012PW	Square Bridge	50 Units/Box
KBPC4014P	Square Bridge	50 Units/Box
KBPC4014PW	Square Bridge	50 Units/Box
KBPC4016P	Square Bridge	50 Units/Box
KBPC4016PW	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, KBPC4000P-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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