
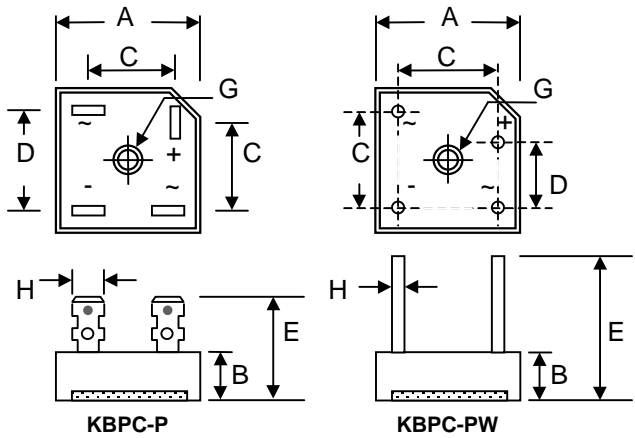


Features

- 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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	KBPC50										Unit	
		00P	01P	02P	04P	06P	08P	10P	12P	14P	16P		
Peak Repetitive Reverse Voltage	V_{RRM}												V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	1200	1400	1600		V
DC Blocking Voltage	V_R												V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	840	980	1120		V
Average Rectified Output Current @ $T_A = 60^\circ\text{C}$	I_O	50										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	450										A	
Forward Voltage per leg @ $I_F = 25\text{A}$	V_{FM}	1.1										V	
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	I_{RM}	10 500										μA	
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	800										A^2s	
Typical Junction Capacitance (Note 1)	C_j	400										pF	
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JC}$	1.6										$^\circ\text{C}/\text{W}$	
RMS Isolation Voltage from Case to Leads	V_{ISO}	2500										V	
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150										$^\circ\text{C}$	

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.

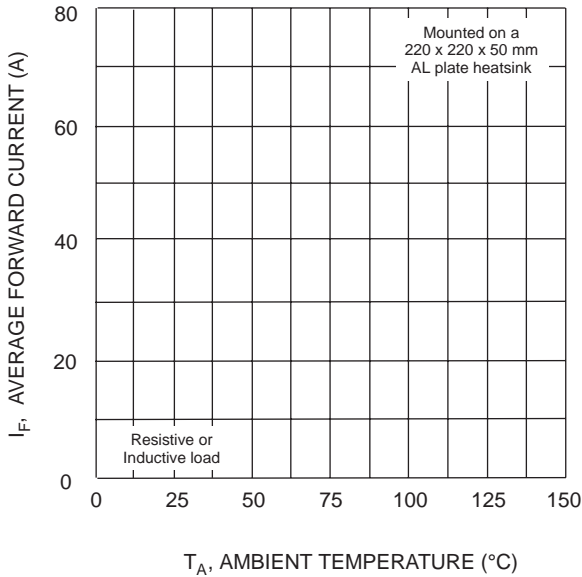


Fig. 1 Forward Current Derating Curve

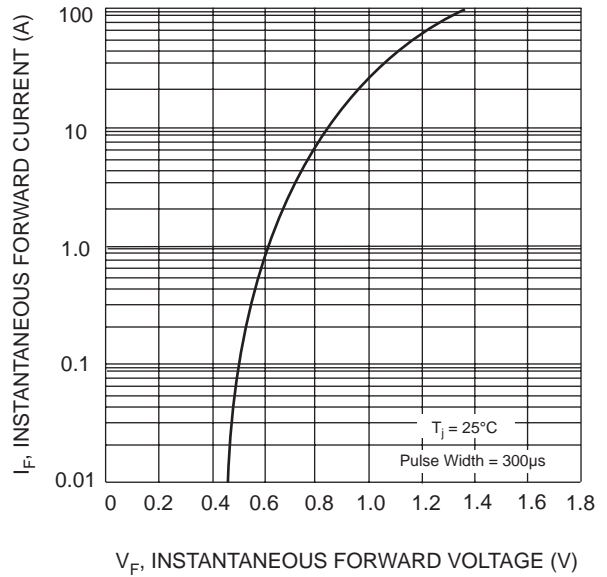


Fig. 2 Typical Forward Characteristics (per element)

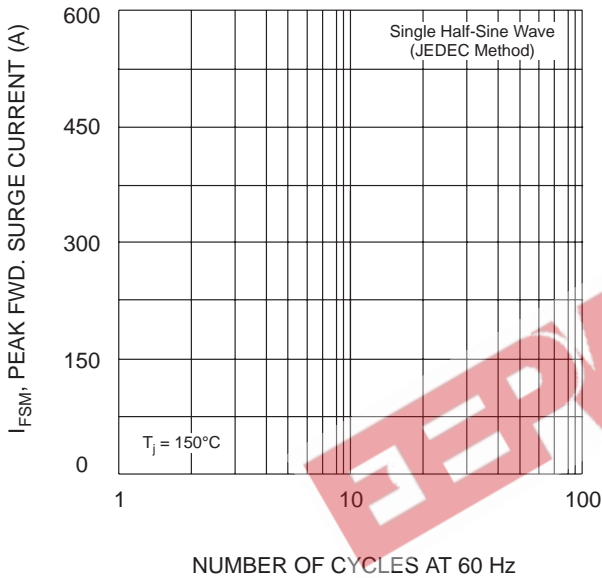


Fig. 3 Max Non-Repetitive Surge Current

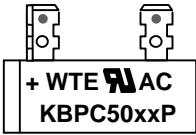
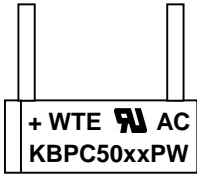


Fig. 4 Typical Junction Capacitance (per element)



Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

<p>KBPC-P</p>  <p>WTE = Manufacturer's Logo KBPC50xxP = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body</p>	<p>KBPC-PW</p>  <p>WTE = Manufacturer's Logo KBPC50xxPW = 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)
KBPC-P	195 x 195 x 40	50	405 x 205 x 240	500	12.0
KBPC-PW	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
KBPC5000P	Square Bridge	50 Units/Box
KBPC5000PW	Square Bridge	50 Units/Box
KBPC5001P	Square Bridge	50 Units/Box
KBPC5001PW	Square Bridge	50 Units/Box
KBPC5002P	Square Bridge	50 Units/Box
KBPC5002PW	Square Bridge	50 Units/Box
KBPC5004P	Square Bridge	50 Units/Box
KBPC5004PW	Square Bridge	50 Units/Box
KBPC5006P	Square Bridge	50 Units/Box
KBPC5006PW	Square Bridge	50 Units/Box
KBPC5008P	Square Bridge	50 Units/Box
KBPC5008PW	Square Bridge	50 Units/Box
KBPC5010P	Square Bridge	50 Units/Box
KBPC5010PW	Square Bridge	50 Units/Box
KBPC5012P	Square Bridge	50 Units/Box
KBPC5012PW	Square Bridge	50 Units/Box
KBPC5014P	Square Bridge	50 Units/Box
KBPC5014PW	Square Bridge	50 Units/Box
KBPC5016P	Square Bridge	50 Units/Box
KBPC5016PW	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, KBPC5000P-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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