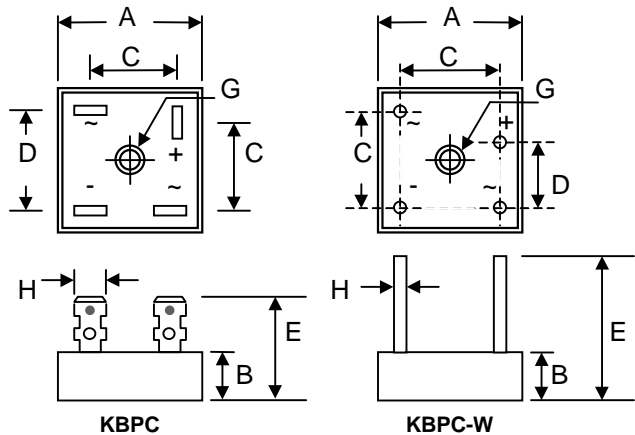


Features

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

Mechanical Data

- Case: KBPC (Metal Case with Faston Lugs) or KBPC-W (Metal Case with Wire Leads)
- 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: 30 grams (KBPC); 28 grams (KBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



Dim	KBPC		KBPC-W	
	Min	Max	Min	Max
A	27.94	28.96	27.94	28.96
B	10.97	11.23	10.97	11.23
C	15.50	17.60	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.86	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	KBPC40										Unit	
		00	01	02	04	06	08	10	12	14	16		
Peak Repetitive Reverse Voltage	V_{RRM}												V
Working Peak Reverse Voltage	V_{RWV}	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	40										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400										A	
Forward Voltage per leg @ $I_F = 20\text{A}$	V_{FM}	1.2										V	
Peak Reverse Current @ $T_C = 25^\circ\text{C}$	I_{RM}	10										μA	
At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$		1.0										mA	
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	664										A^2s	
Typical Junction Capacitance (Note 1)	C_j	300										pF	
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JC}$	2.1										$^\circ\text{C/W}$	
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

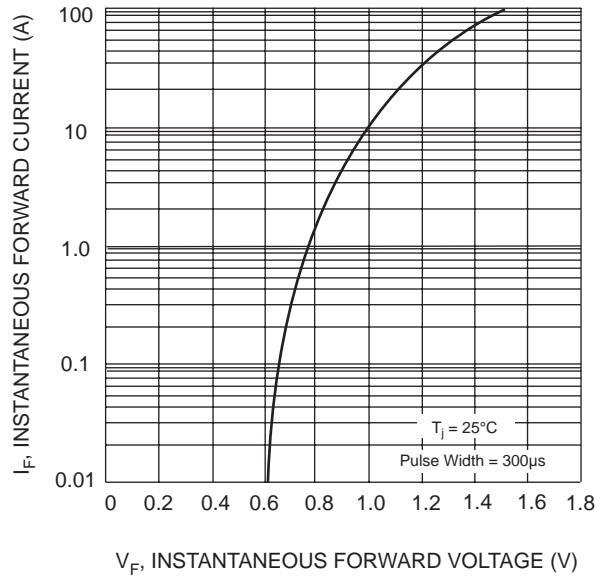


Fig. 2 Typical Forward Characteristics (per element)

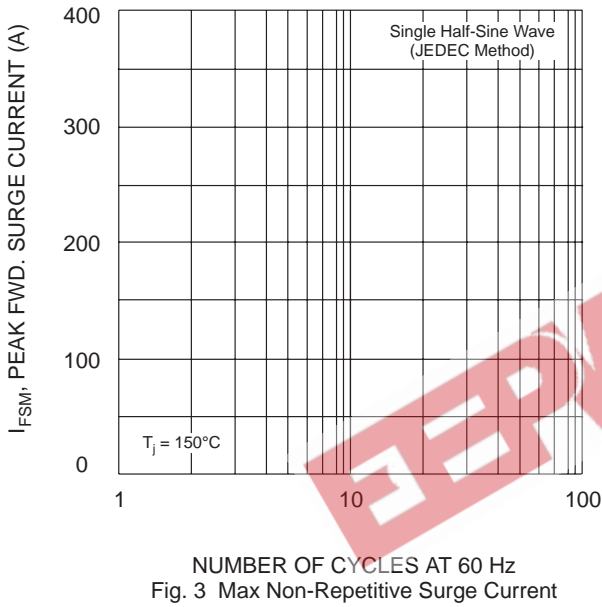


Fig. 3 Max Non-Repetitive Surge Current

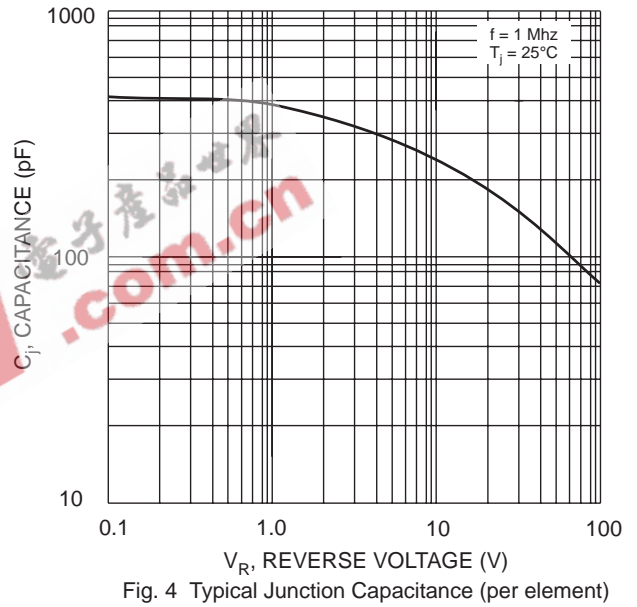
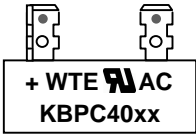
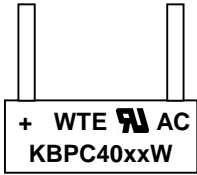


Fig. 4 Typical Junction Capacitance (per element)



Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

<p>KBPC</p>  <p>WTE = Manufacturer's Logo KBPC40xx = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body</p>	<p>KBPC-W</p>  <p>WTE = Manufacturer's Logo KBPC40xxW = 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	195 x 195 x 40	50	405 x 205 x 240	500	17.0
KBPC-W	195 x 195 x 40	50	405 x 205 x 240	500	16.0

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

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC4000	Square Bridge	50 Units/Box
KBPC4000W	Square Bridge	50 Units/Box
KBPC4001	Square Bridge	50 Units/Box
KBPC4001W	Square Bridge	50 Units/Box
KBPC4002	Square Bridge	50 Units/Box
KBPC4002W	Square Bridge	50 Units/Box
KBPC4004	Square Bridge	50 Units/Box
KBPC4004W	Square Bridge	50 Units/Box
KBPC4006	Square Bridge	50 Units/Box
KBPC4006W	Square Bridge	50 Units/Box
KBPC4008	Square Bridge	50 Units/Box
KBPC4008W	Square Bridge	50 Units/Box
KBPC4010	Square Bridge	50 Units/Box
KBPC4010W	Square Bridge	50 Units/Box
KBPC4012	Square Bridge	50 Units/Box
KBPC4012W	Square Bridge	50 Units/Box
KBPC4014	Square Bridge	50 Units/Box
KBPC4014W	Square Bridge	50 Units/Box
KBPC4016	Square Bridge	50 Units/Box
KBPC4016W	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, KBPC4000-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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