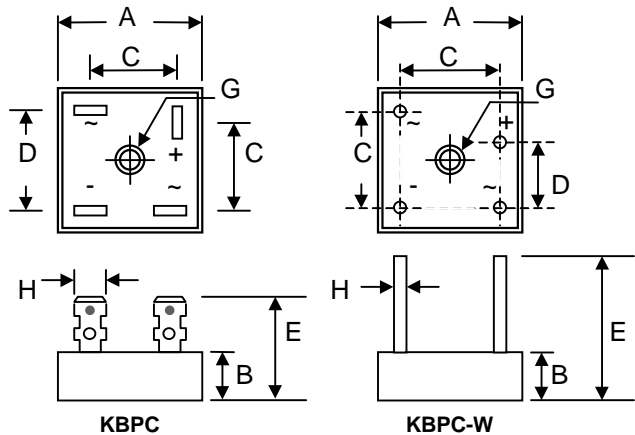


### Features

- 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**



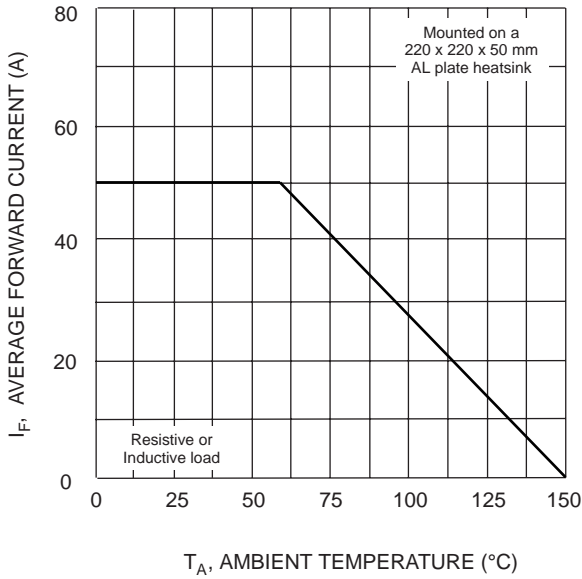
Dim	KBPC		KBPC-W	
	Min	Max	Min	Max
A	27.94	28.96	27.94	28.96
B	10.97	11.23	10.97	11.23
C	15.50	17.60	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.86	25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø 1.07Ø	
All Dimension in mm				

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

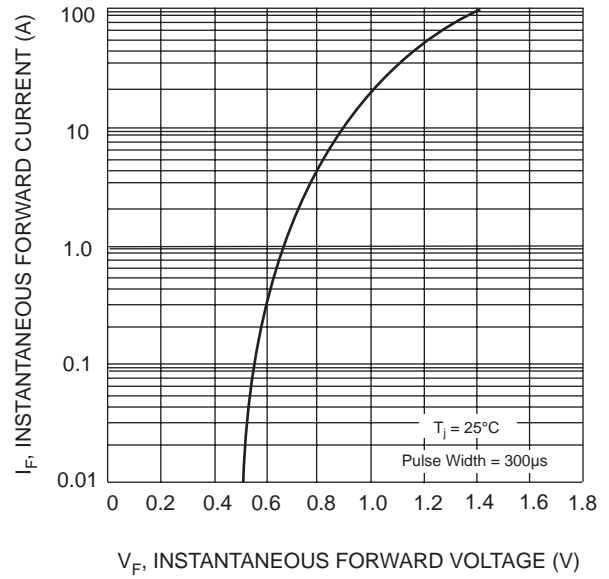
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	KBPC50										Unit
		00	01	02	04	06	08	10	12	14	16	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWV}$ $V_R$	50	100	200	400	600	800	1000	1200	1400	1600	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 @ $I_F = 25\text{A}$	$V_{FM}$	1.2										V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	$I_{RM}$	10 1.0										$\mu\text{A}$ mA
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	800										$\text{A}^2\text{s}$
Typical Junction Capacitance (Note 1)	$C_j$	300										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										$^\circ\text{C}$

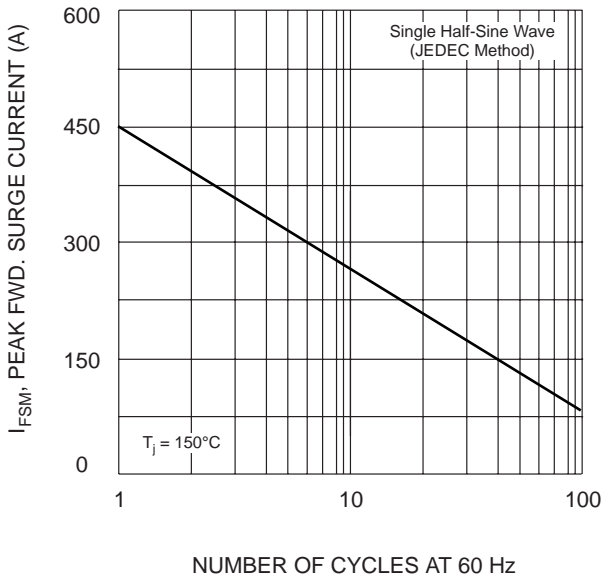
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to case, mounted on heatsink.



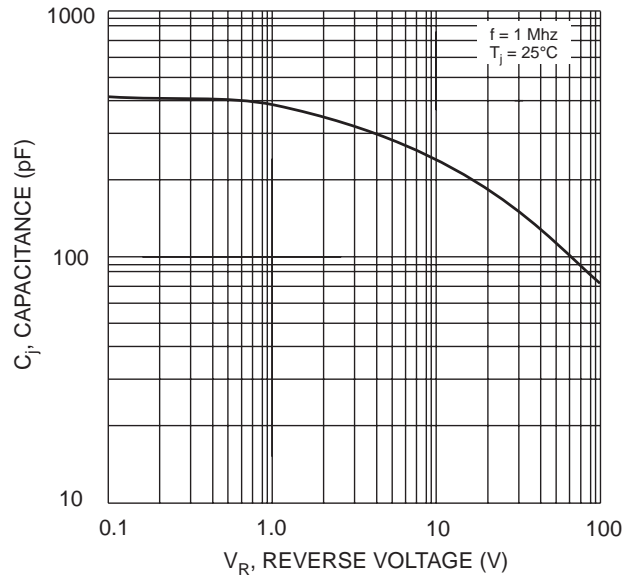
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



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



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

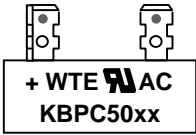
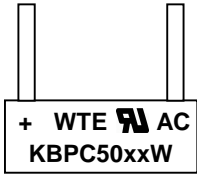


$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Junction Capacitance (per element)



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

## MARKING INFORMATION

<p><b>KBPC</b></p> <div style="text-align: center; margin: 10px 0;">  </div> <p>WTE = Manufacturer's Logo          KBPC50xx = Device Number          xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16          Polarity = As Marked on Body</p>	<p><b>KBPC-W</b></p> <div style="text-align: center; margin: 10px 0;">  </div> <p>WTE = Manufacturer's Logo          KBPC50xxW = 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</b>	195 x 195 x 40	50	405 x 205 x 240	500	17.0
<b>KBPC-W</b>	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
KBPC5000	Square Bridge	50 Units/Box
KBPC5000W	Square Bridge	50 Units/Box
KBPC5001	Square Bridge	50 Units/Box
KBPC5001W	Square Bridge	50 Units/Box
KBPC5002	Square Bridge	50 Units/Box
KBPC5002W	Square Bridge	50 Units/Box
KBPC5004	Square Bridge	50 Units/Box
KBPC5004W	Square Bridge	50 Units/Box
KBPC5006	Square Bridge	50 Units/Box
KBPC5006W	Square Bridge	50 Units/Box
KBPC5008	Square Bridge	50 Units/Box
KBPC5008W	Square Bridge	50 Units/Box
KBPC5010	Square Bridge	50 Units/Box
KBPC5010W	Square Bridge	50 Units/Box
KBPC5012	Square Bridge	50 Units/Box
KBPC5012W	Square Bridge	50 Units/Box
KBPC5014	Square Bridge	50 Units/Box
KBPC5014W	Square Bridge	50 Units/Box
KBPC5016	Square Bridge	50 Units/Box
KBPC5016W	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, KBPC5000-LF.**

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**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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