

# KBPC40, 50P/W SERIES

## 40, 50A HIGH CURRENT BRIDGE RECTIFIER

### Features

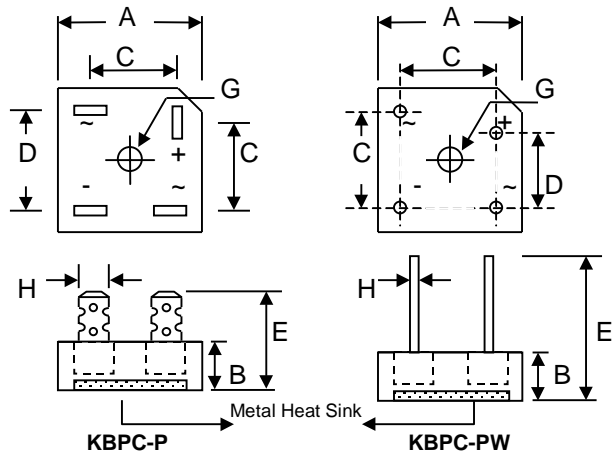
- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E157705

### Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC-P 24 grams (approx.)  
KBPC-PW 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads  
No Suffix Designates Faston Terminals

\*All Models are Available on B(Height)=7.9mm Max. Epoxy Case



Dim	KBPC-P		KBPC-PW	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	10.97	11.23	10.97	11.23
C	15.70	16.70	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%.

Characteristics	Symbol	-00P/W	-01P/W	-02P/W	-04P/W	-06P/W	-08P/W	-10P/W	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Output Current @ $T_C = 55^\circ\text{C}$	KBPC40 KBPC50 $I_O$				40 50				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	KBPC40 KBPC50 $I_{FSM}$				400 400				A
Forward Voltage Drop (per element)	KBPC40 @ $I_F = 20\text{A}$ KBPC50 @ $I_F = 25\text{A}$ $V_{FM}$				1.2				V
Peak Reverse Current At Rated DC Blocking Voltage	@ $T_C = 25^\circ\text{C}$ @ $T_C = 125^\circ\text{C}$ $I_{RM}$				10 1.0				$\mu\text{A}$ mA

---

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

---

Typical Junction Capacitance (per element) (Note 1)	$C_j$	300	pF
Typical Thermal Resistance Junction to Case (per element) (Note 2)	$R_{\theta JC}$	1.5	K/W
RMS Isolation Voltage from Case to Lead	Viso	2500	V
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +125	$^{\circ}\text{C}$

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.

EEPW 电子产品世界  
.com.cn

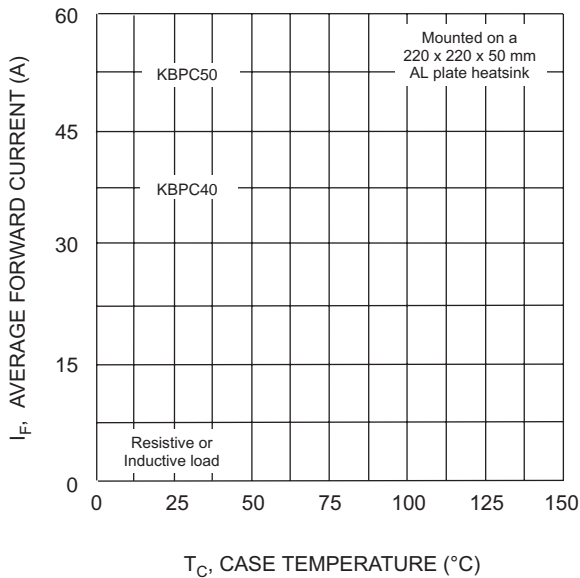


Fig. 1 Forward Current Derating Curve

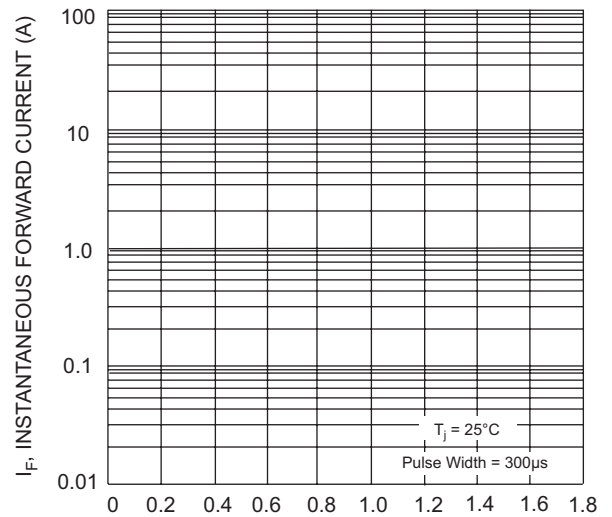


Fig. 2 Typical Forward Characteristics (per element)

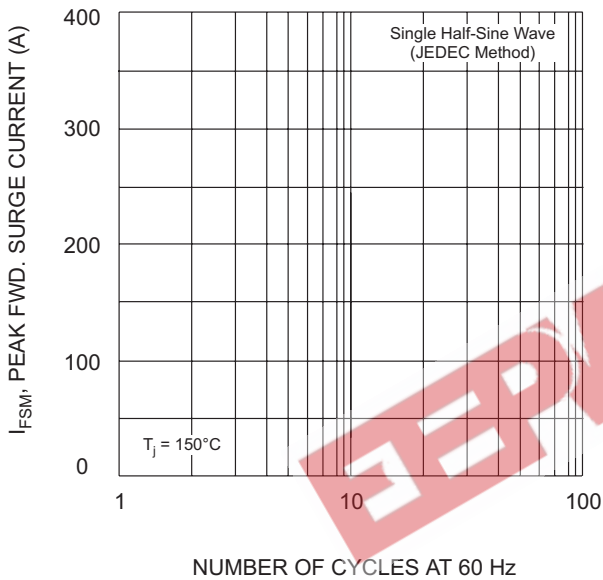


Fig. 3 Max Non-Repetitive Surge Current

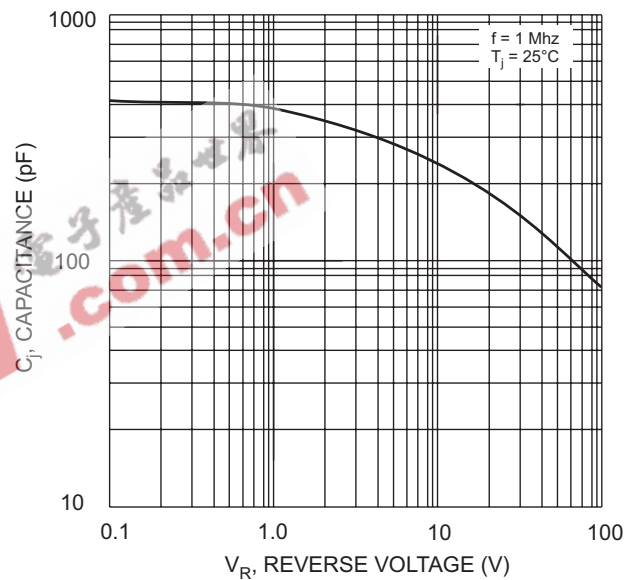


Fig. 4 Typical Junction Capacitance (per element)

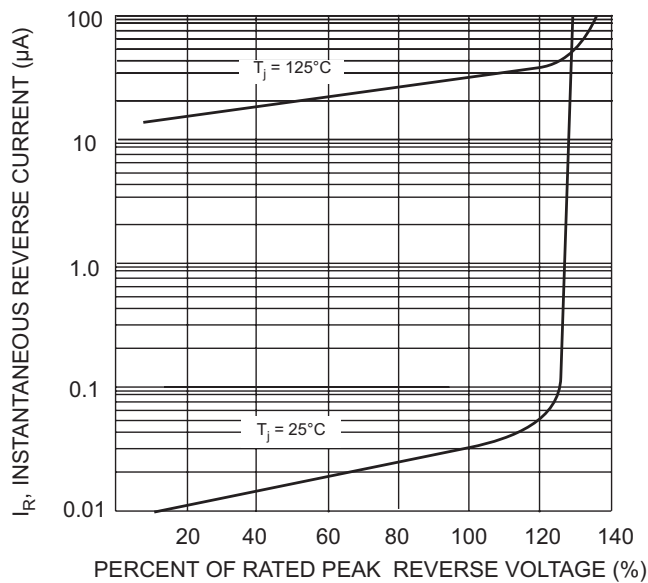


Fig. 5 Typical Reverse Characteristics (per element)

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPCxx00P	Square Bridge	50 Units/Box
KBPCxx00PW	Square Bridge	50 Units/Box
KBPCxx01P	Square Bridge	50 Units/Box
KBPCxx01PW	Square Bridge	50 Units/Box
KBPCxx02P	Square Bridge	50 Units/Box
KBPCxx02PW	Square Bridge	50 Units/Box
KBPCxx04P	Square Bridge	50 Units/Box
KBPCxx04PW	Square Bridge	50 Units/Box
KBPCxx06P	Square Bridge	50 Units/Box
KBPCxx06PW	Square Bridge	50 Units/Box
KBPCxx08P	Square Bridge	50 Units/Box
KBPCxx08PW	Square Bridge	50 Units/Box
KBPCxx10P	Square Bridge	50 Units/Box
KBPCxx10PW	Square Bridge	50 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

EEPW 电子产品世界  
.com.cn

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.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

*We power your everyday.*