
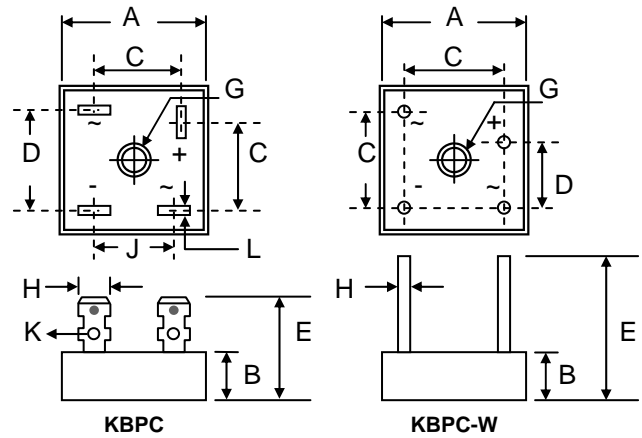


### Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Metal Case for Maximum Heat Dissipation
- Low Thermal Resistance
- High Surge Current Capability
-  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: 2.0 N.m 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	10.77	11.23	10.77	11.23
C	15.30	17.60	17.10	19.10
D	17.10	19.10	10.40	12.40
E	21.50	—	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø
J	13.20	15.20		
K	2.5Ø Typical			
L	0.71	0.91		
All Dimension in mm				

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

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

Characteristic	Symbol	KBPC10								Unit
		00	01	02	04	06	08	10	12	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>									
Working Peak Reverse Voltage	V <sub>VRWM</sub>	50	100	200	400	600	800	1000	1200	V
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	840	V
Average Rectified Output Current @ <sub>T<sub>C</sub></sub> = 55°C	I <sub>O</sub>	10								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	250								A
Forward Voltage per leg @ <sub>I<sub>F</sub></sub> = 5.0A	V <sub>FM</sub>	1.1								V
Peak Reverse Current @ <sub>T<sub>C</sub></sub> = 25°C At Rated DC Blocking Voltage @ <sub>T<sub>C</sub></sub> = 125°C	I <sub>RM</sub>	10 500								µA
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	260								A <sup>2</sup> s
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	200								pF
Typical Thermal Resistance (Note 2)	R <sub>JC</sub>	1.7								°C/W
RMS Isolation Voltage, t = 1min	V <sub>ISO</sub>	2500								V
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 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 152 x 56 x 56mm Al. heatsink.

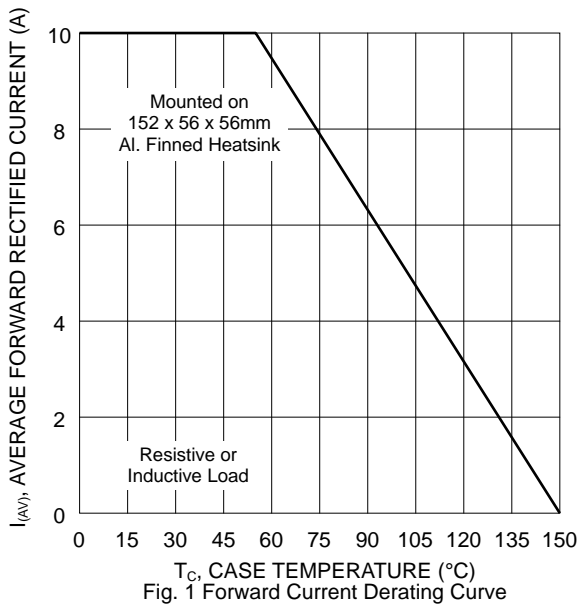


Fig. 1 Forward Current Derating Curve

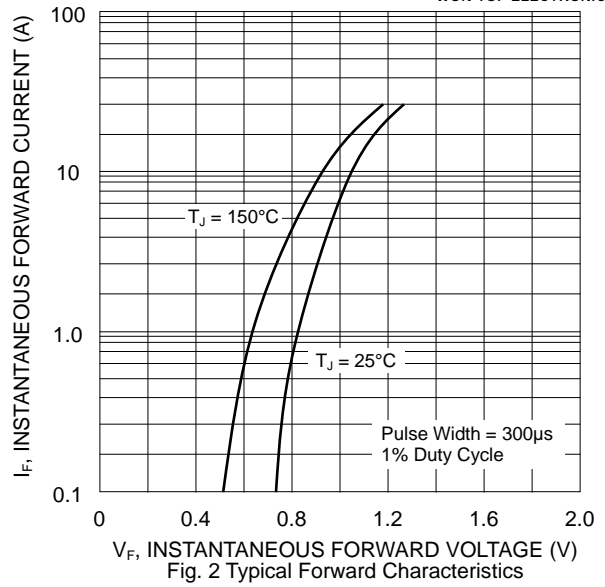


Fig. 2 Typical Forward Characteristics

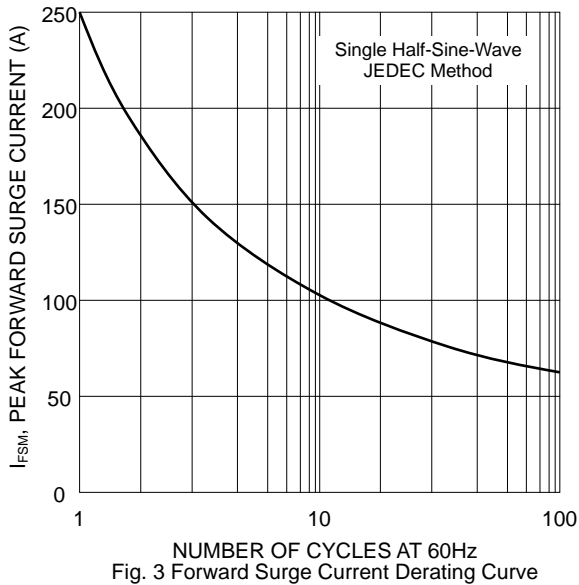


Fig. 3 Forward Surge Current Derating Curve

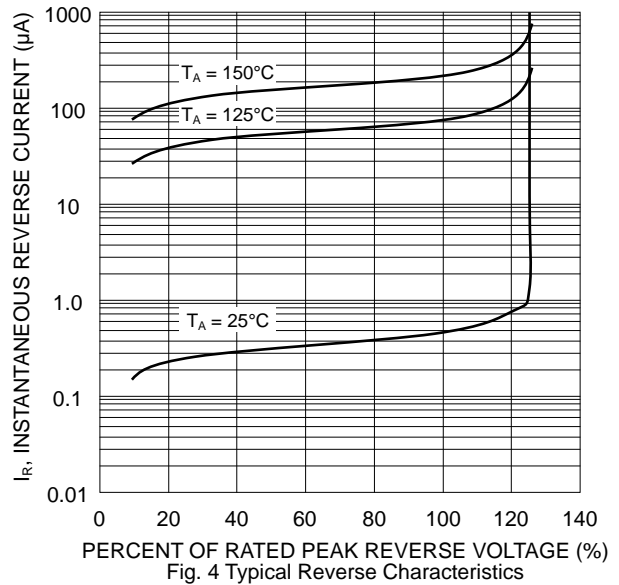


Fig. 4 Typical Reverse Characteristics

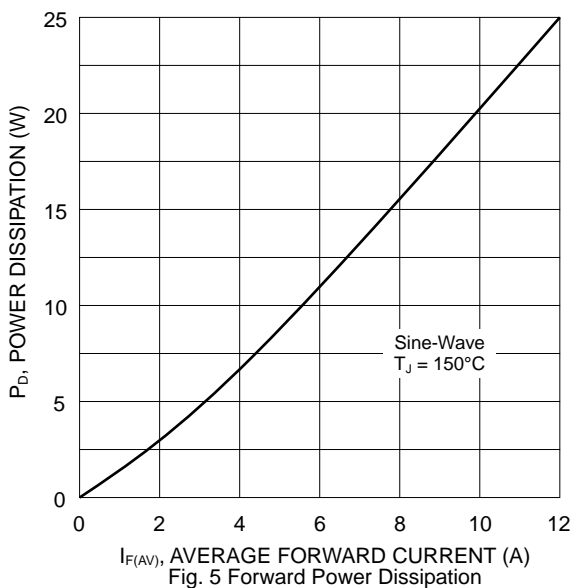


Fig. 5 Forward Power Dissipation

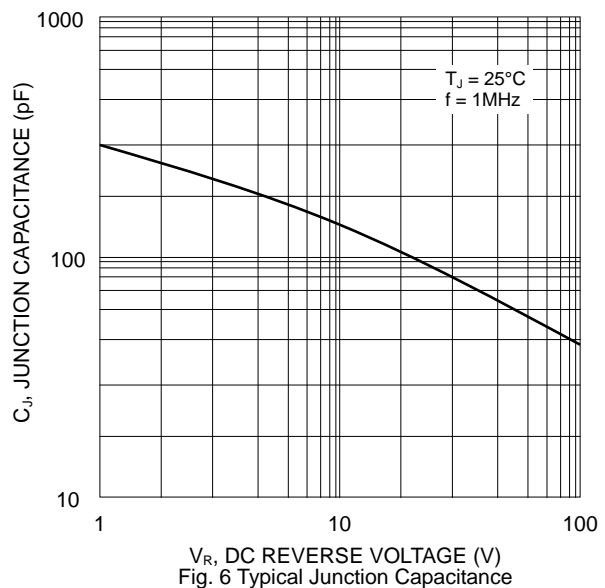
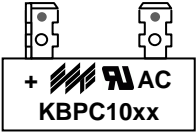
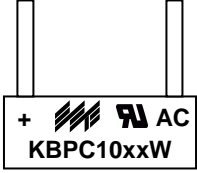


Fig. 6 Typical Junction Capacitance

## MARKING INFORMATION

KBPC	KBPC-W
 <p>KBPC10xx = Device Number            xx = 00, 01, 02, 04, 06, 08, 10 or 12            Polarity = As Marked on Body</p>	 <p>KBPC10xxW = Device Number            xx = 00, 01, 02, 04, 06, 08, 10 or 12            Polarity = As Marked on Body</p>

## 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
KBPC10xx	Square Bridge	50 Units/Box
KBPC10xxW	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 RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC1000-LF.**

WON-TOP ELECTRONICS and  are registered trademarks of Won-Top Electronics Co., Ltd (WTE). 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 806, 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.*