
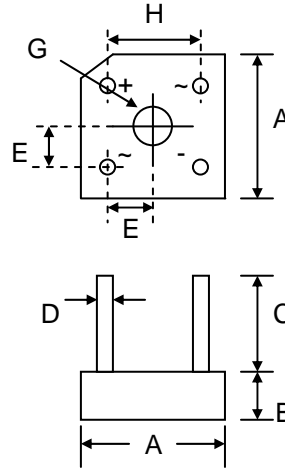


Features

- Glass Passivated Die Construction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has UL Flammability 94V-0
-  Recognized File # E157705

Mechanical Data

- Case: KBPC-8, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 5.4 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 0.8 N.m Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



KBPC-8		
Dim	Min	Max
A	18.54	19.56
B	6.35	7.60
C	15.00	—
D	1.27 Ø Typical	
E	5.33	7.37
G	Hole for #6 screw	
	3.60	4.00
H	12.20	13.20
All Dimensions 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	KBPC 800G	KBPC 801G	KBPC 802G	KBPC 804G	KBPC 806G	KBPC 808G	KBPC 810G	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_C = 50^\circ\text{C}$	I_O	8.0							A
Average Rectified Output Current (Note 2) @ $T_A = 40^\circ\text{C}$		4.0							
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	175							A
Forward Voltage per leg @ $I_F = 4.0\text{A}$	V_{FM}	1.1							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_{RM}	5.0 500							μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	166							A^2s
Typical Junction Capacitance (Note 3)	C_J	211					94		pF
Thermal Resistance Junction to Ambient (Note 2)	R_{JA}	22							$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to Case (Note 1)	R_{JC}	6.5							
RMS Isolation Voltage Terminals to Case, $t = 1\text{min}$	V_{ISO}	1500							V
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

- Note: 1. Mounted on 150 x 150 x 3.0mm thick Al. heatsink.
 2. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

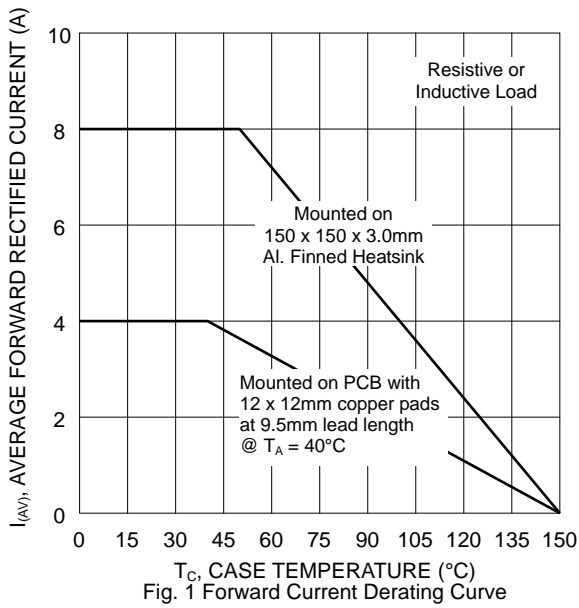


Fig. 1 Forward Current Derating Curve

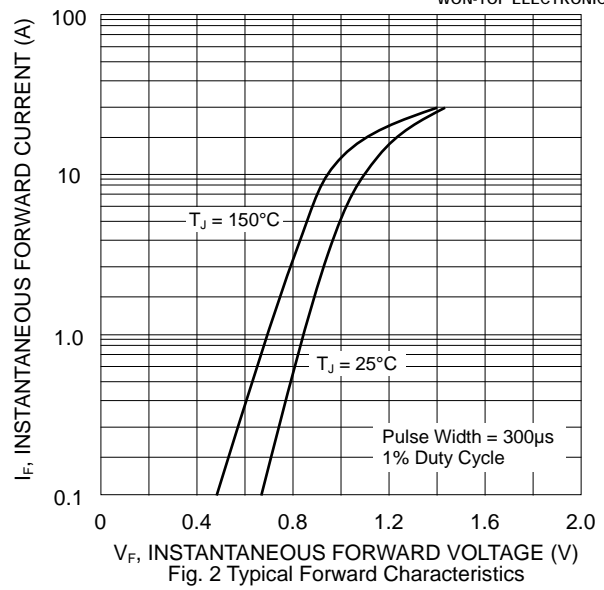


Fig. 2 Typical Forward Characteristics

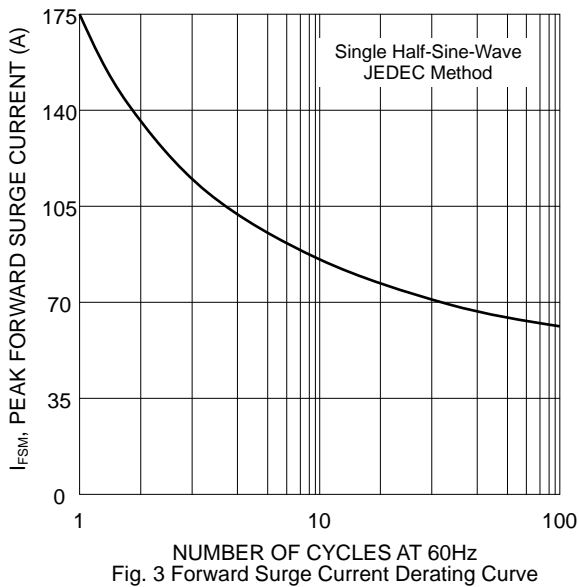


Fig. 3 Forward Surge Current Derating Curve

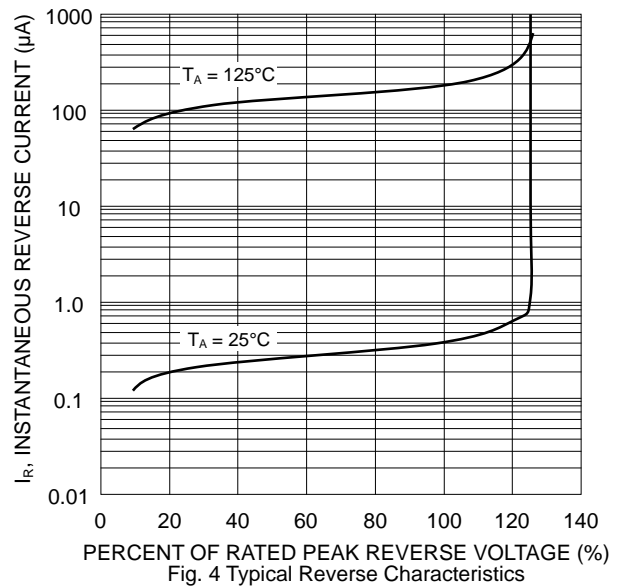


Fig. 4 Typical Reverse Characteristics

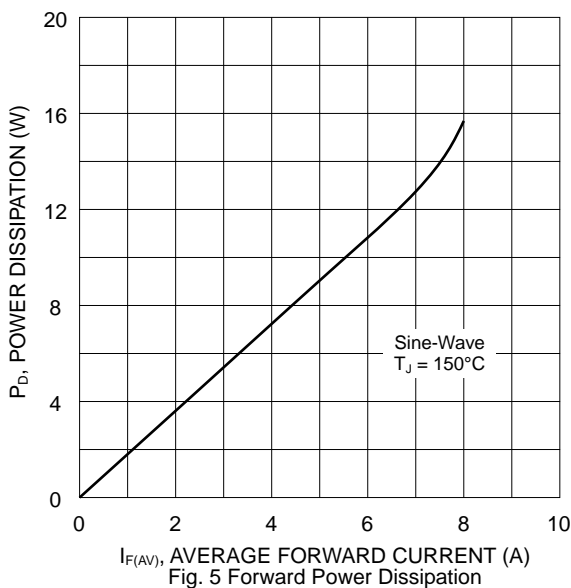


Fig. 5 Forward Power Dissipation

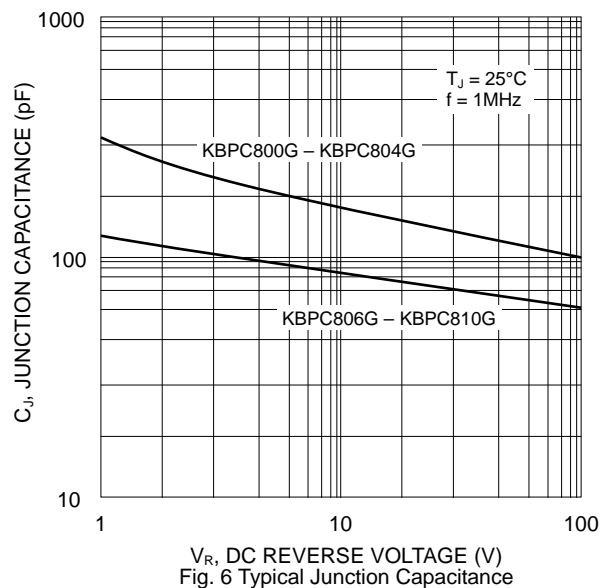
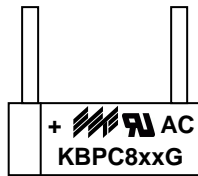


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



KBPC8xxG = Device Number
 xx = 00, 01, 02, 04, 06, 08 or 10
 Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

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)
237 x 240 x 52	200	500 x 255 x 275	2,000	14.0

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

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC800G	Square Bridge	200 Units/Box
KBPC801G	Square Bridge	200 Units/Box
KBPC802G	Square Bridge	200 Units/Box
KBPC804G	Square Bridge	200 Units/Box
KBPC806G	Square Bridge	200 Units/Box
KBPC808G	Square Bridge	200 Units/Box
KBPC810G	Square Bridge	200 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, KBPC800G-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.

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>

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