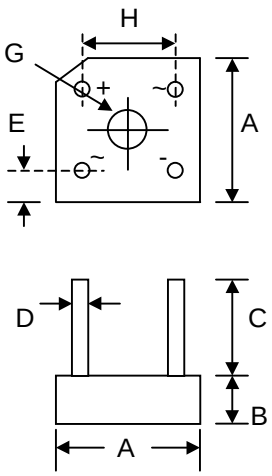
KBPC300 – KBPC310

3.0A SINGLE-PHASE BRIDGE RECTIFIER

Features

- Diffused Junction
- 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



KBPC-3		
Dim	**Min**	**Max**
A	14.73	15.75
B	5.84	6.86
C	19.00	—
D	0.76 Ø Typical	
E	1.70	2.72
G	Hole for #6 screw	
	3.60	4.00
H	10.30	11.30
All Dimensions in mm		

Mechanical Data

- Case: KBPC-3, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 3.8 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 10 cm-kg (8.8 in-lbs) Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	KBPC 300	KBPC 301	KBPC 302	KBPC 304	KBPC 306	KBPC 308	KBPC 310	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T_C = 50°C	I_O	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Forward Voltage per leg @I_F = 1.5A	V_{FM}	1.1							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_R	5.0 500							μA
I^2t Rating for Fusing (t<8.3ms) (Note 2)	I^2t	10							A^2s
Typical Junction Capacitance (Note 3)	C_j	25							pF
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JC}$	10							°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125							°C

Note: 1. Mounted on metal chassis.
2. Non-repetitive, for t > 1ms and < 8.3ms.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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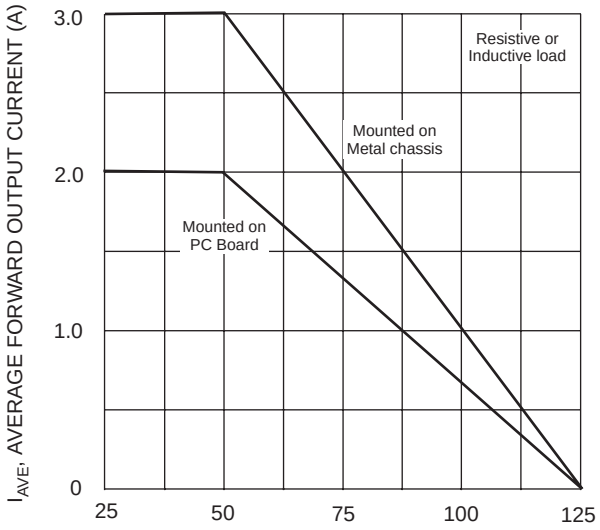


Fig. 1 Forward Current Derating Curve

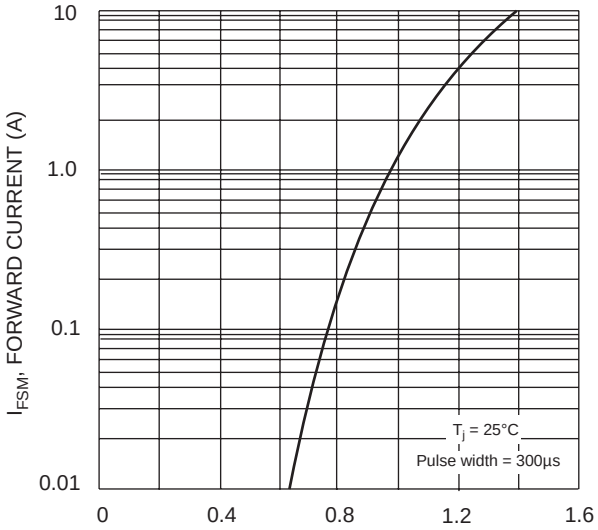


Fig. 2 Typical Forward Characteristics, per element

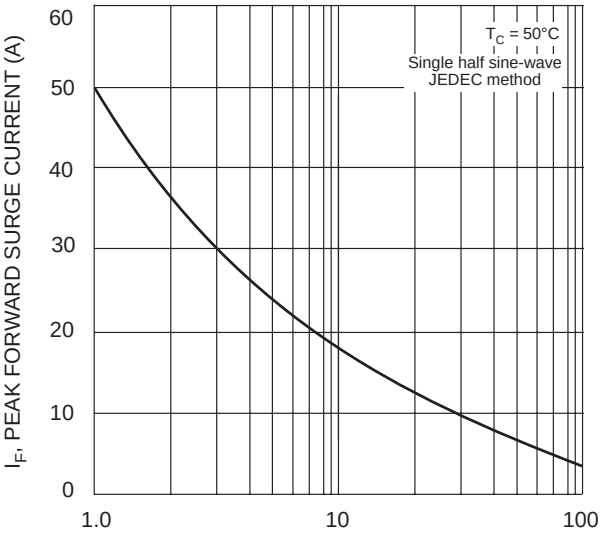


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

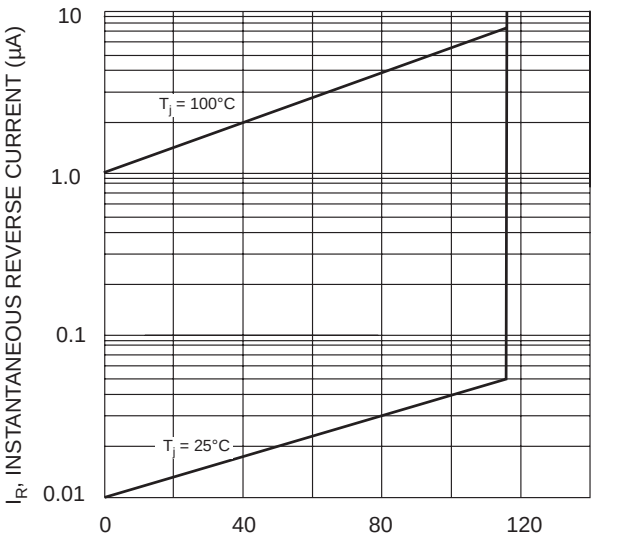
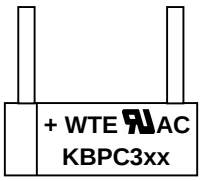


Fig. 4 Typical Reverse Characteristics, per element

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MARKING INFORMATION



WTE	= Manufacturer's Logo
KBPC3xx	= 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)
198 x 198 x 50	200	425 x 215 x 280	2,000	8.0

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

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ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC300	Square Bridge	200 Units/Box
KBPC301	Square Bridge	200 Units/Box
KBPC302	Square Bridge	200 Units/Box
KBPC304	Square Bridge	200 Units/Box
KBPC306	Square Bridge	200 Units/Box
KBPC308	Square Bridge	200 Units/Box
KBPC310	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 Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC300-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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