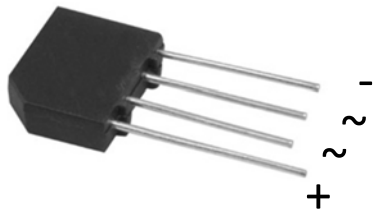
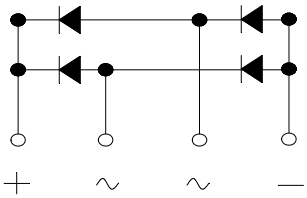
Bridge Rectifiers





Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package**: KBP
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Device marking code			KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T_C=90℃	I_O	A	3						
Forward Surge Current (Non-repetitive) @8.3ms Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	60						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			120						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I^2t	A^2s	15						
Storage temperature	T_{stg}	℃	-55 ~ +150						
Junction temperature	T_j	℃	-55 ~ +150						

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=1.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5						
			T_j=125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	18						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Thermal Resistance	Between junction and ambient	RθJ-A	℃/W	30						
	Between junction and lead	RθJ-L		15						
	Between junction and case	RθJ-C		10						

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT (g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBP3005 ~ KBP310	A1	Approximate 1.75	500	500	5000	Paper Box

■ Characteristics (Typical)

FIG1:Io-Tc Curve

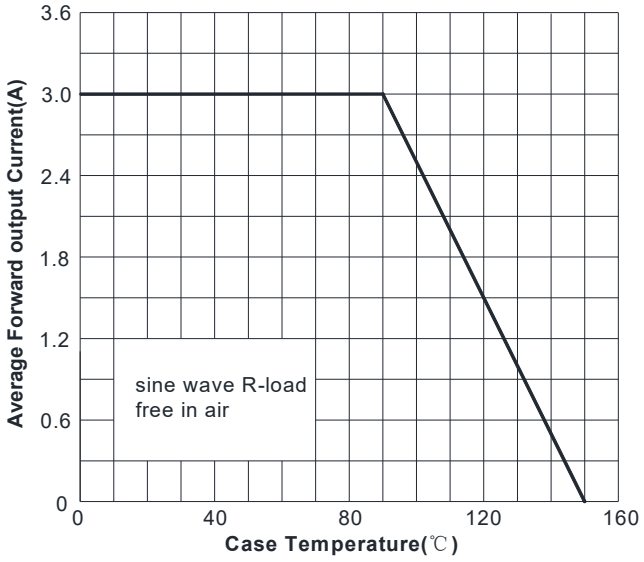


FIG2:Surge Forward Current Capability

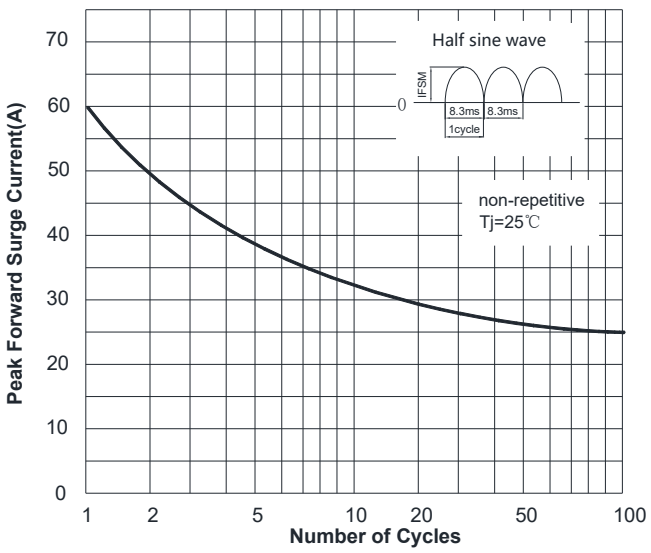


FIG3: Typical Forward Voltage

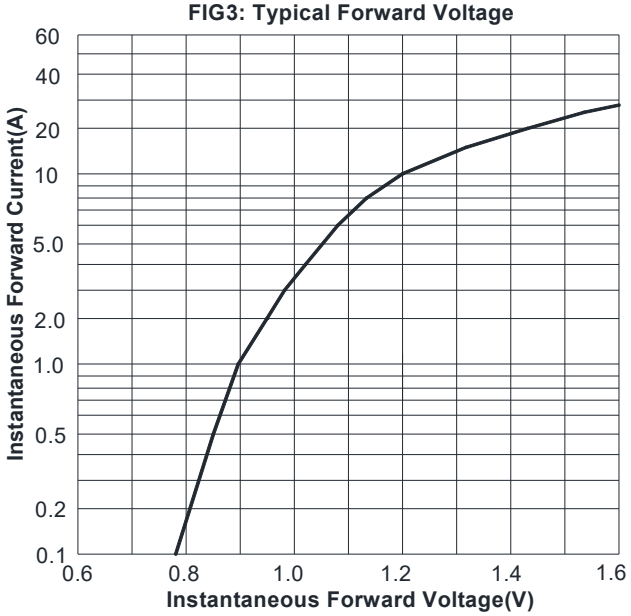
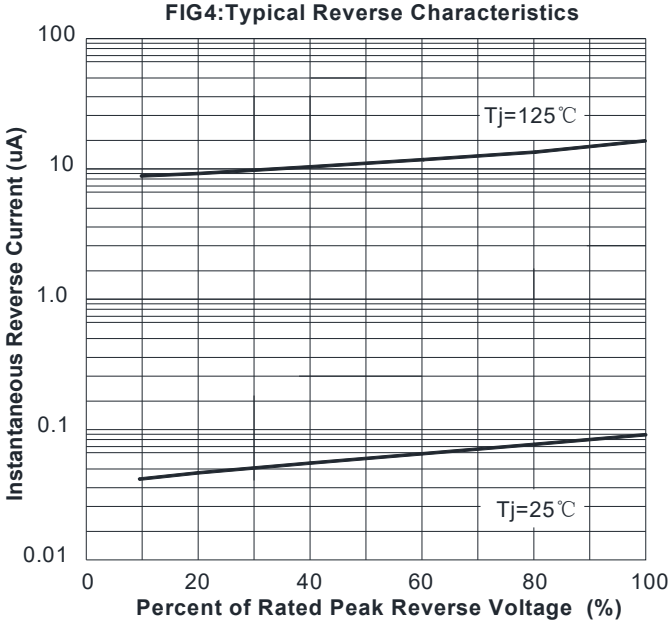
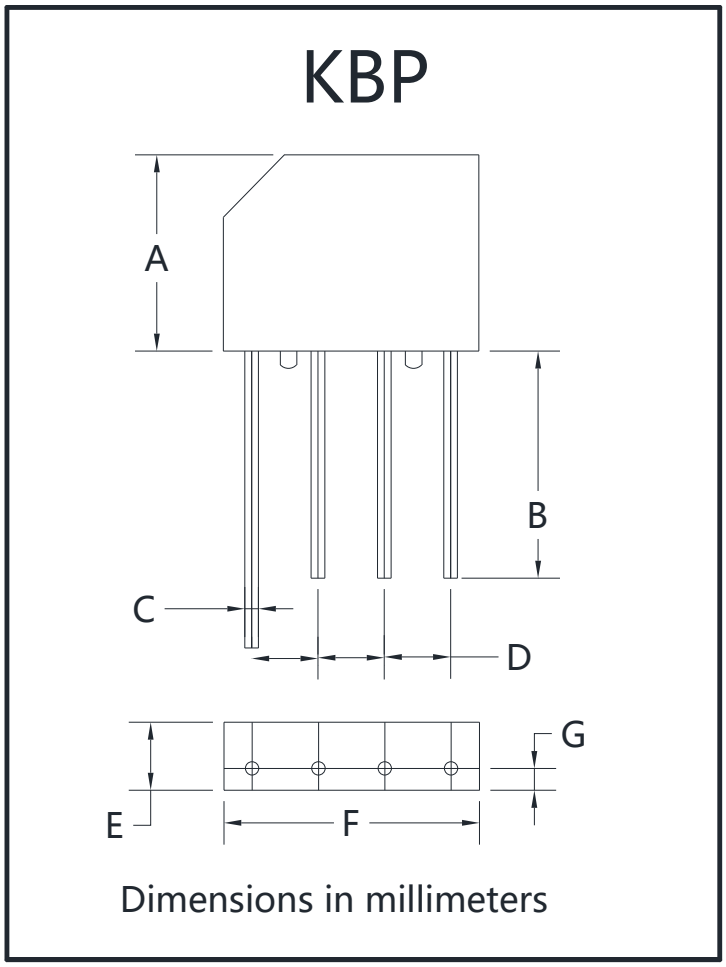


FIG4:Typical Reverse Characteristics



■ Outline Dimensions



KBP		
Dim	**Min**	**Max**
A	11.0	11.6
B	12.7	/
C	0.7	0.9
D	3.6	4.1
E	3.7	3.95
F	14.4	15.0
G	1.10	1.27

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.