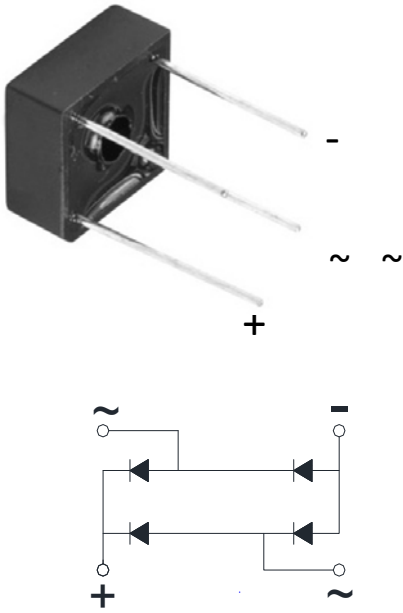


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Suitable for printed circuit board or chassis mounting
- Compact construction
- High surge current capability
- Solder dip 275 °C max. 7s, per JESD 22-B106

Typical Applications

The KBPC series of single phase rectifier bridge consists of four silicon junctions connected as a full bridge. These devices are intended for general use in industrial and consumer equipment.

Mechanical Data

- Package: KBPC1
- 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 (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC1005	KBPC101	KBPC102	KBPC104	KBPC106	KBPC108	KBPC110
Device marking code			KBPC1005	KBPC101	KBPC102	KBPC104	KBPC106	KBPC108	KBPC110
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, T _c =130°C	I _O	A	1.0						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, T _j =25°C	I _{FSM}	A	45						
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	8.4						
Dielectric strength @ Terminals to case, AC 1 minute	V _{dis}	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						
Storage temperature	T _{stg}	°C	-55 ~ +150						
Junction temperature	T _j	°C	-55 ~ +150						



KBPC1005 THRU KBPC110

■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC1005	KBPC101	KBPC102	KBPC104	KBPC106	KBPC108	KBPC110
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=1.0\text{A}$	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	$T_j=25^{\circ}\text{C}$	5						
			$T_j=125^{\circ}\text{C}$	100						
Typical junction capacitance	C_j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	11						

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBPC1005	KBPC101	KBPC102	KBPC104	KBPC106	KBPC108	KBPC110
Thermal Resistance Between junction and case, With heatsink	$R_{\theta J-C}$	$^{\circ}\text{C/W}$	10						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBPC1005 ~ KBPC110	A1	Approximate 2.5	200	200	2000	Paper Box

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

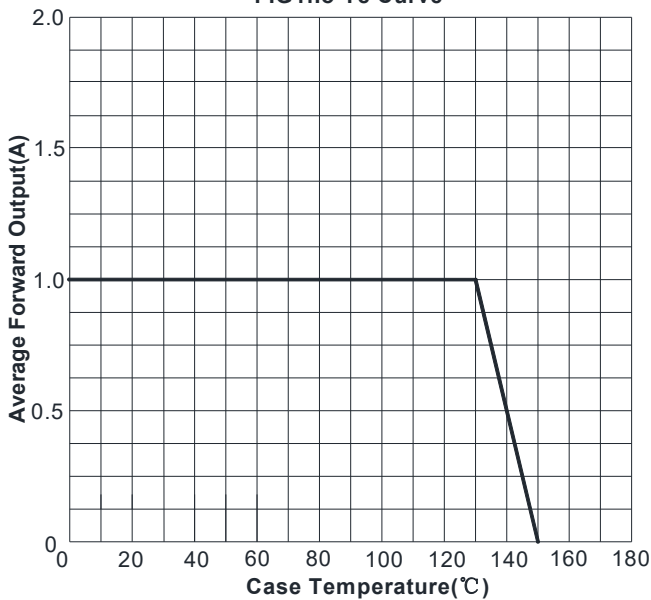
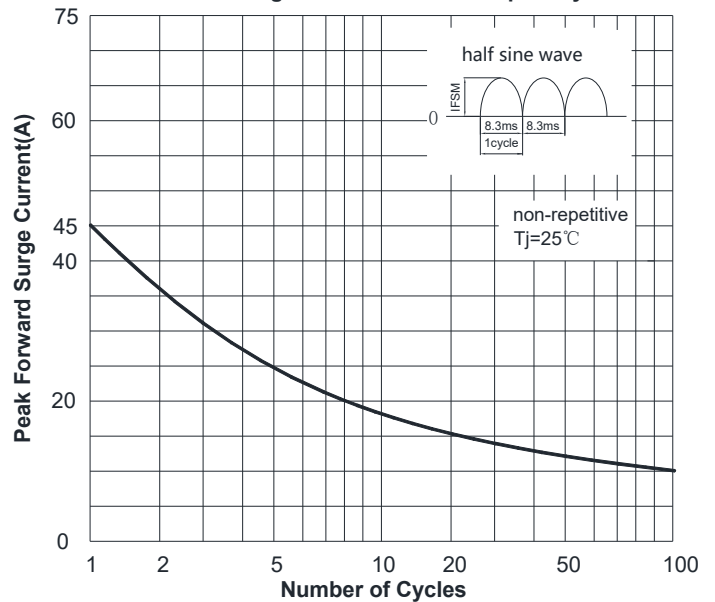


FIG2: Surge Forward Current Capability





KBPC1005 THRU KBPC110

FIG3: Typical Forward Voltage

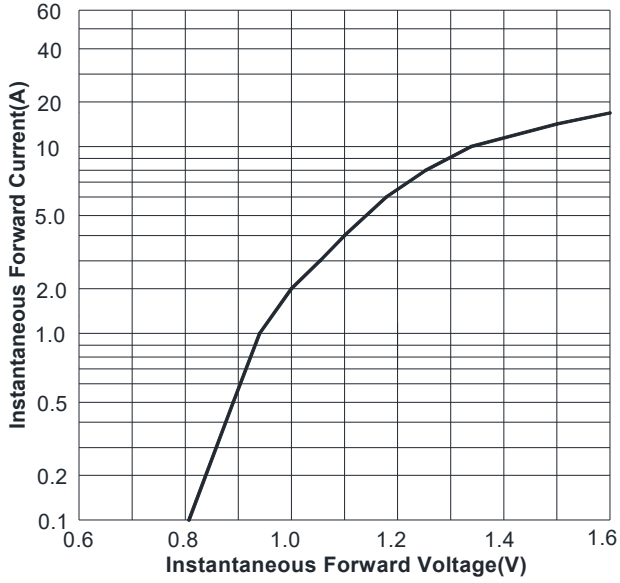
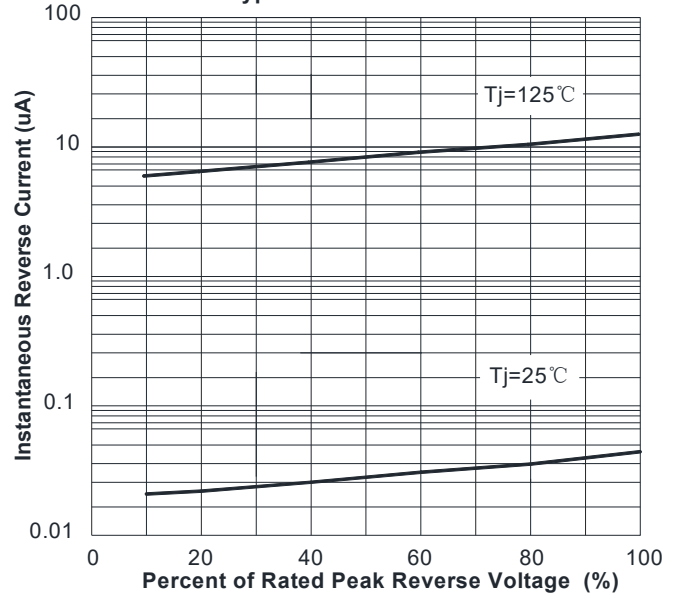
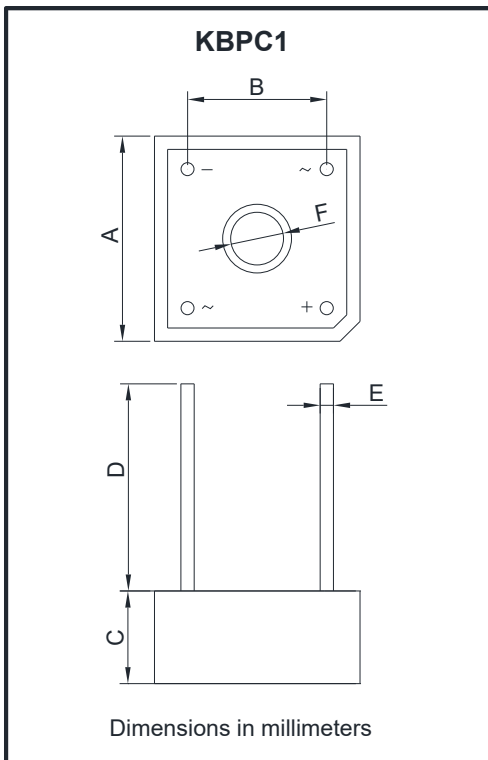


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



KBPC1		
Dim	Min	Max
A	14.7	15.7
B	10.3	11.3
C	6.35	7.6
D	15.0	/
E	0.74	0.82
F	3.8	4.2



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 which 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](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.