



Bridge Rectifiers

Features

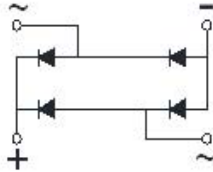
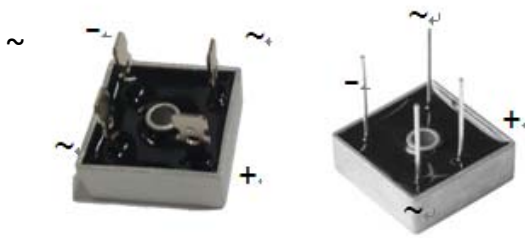
- UL recognition file number E230084
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

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

Mechanical Data

- **Package:** KBPC, KBPC-W
Molding compound meets UL 94 V-0 flammability rating, RoHS- compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
Suffix letter "W" added to indicate wire leads(e.g. KBPC5010W)



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

PARAMETER	SYMBOL	UNIT	KBPC50005	KBPC5001	KBPC5002	KBPC5004	KBPC5006	KBPC5008	KBPC5010
Device marking code			KBPC50005	KBPC5001	KBPC5002	KBPC5004	KBPC5006	KBPC5008	KBPC5010
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, $T_c=55^{\circ}\text{C}$	IO	A	50						
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, $T_a=25^{\circ}\text{C}$	IFSM	A	500						
Current Squared Time @1ms≤t≤8.3ms $T_j=25^{\circ}\text{C}$, Rating of per diode	I ² t	A ² S	1040						
Storage Temperature	Tstg	°C	-55 ~ +150						
Junction Temperature	Tj	°C	-55 ~ +150						
Dielectric Strength, Terminals to case, AC 1 minute	Vdis	KV	2.5						
Mounting Torque	TOR	kg·cm	10						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC50005	KBPC5001	KBPC5002	KBPC5004	KBPC5006	KBPC5008	KBPC5010
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=25A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	μA	VRM=VRRM	10						

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

PARAMETER		SYMBOL	UNIT	KBPC50005	KBPC5001	KBPC5002	KBPC5004	KBPC5006	KBPC5008	KBPC5010
Thermal Resistance	Between junction and case, With heatsink	R θ J-C	°C/W	1.3						

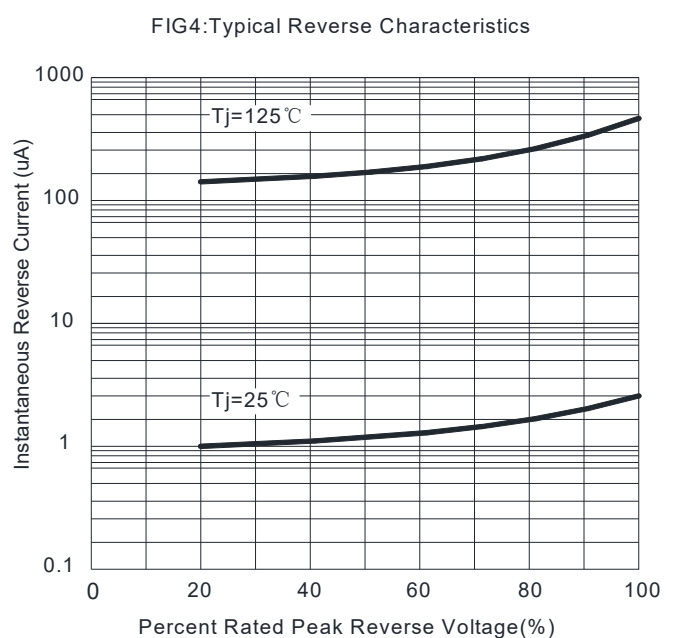
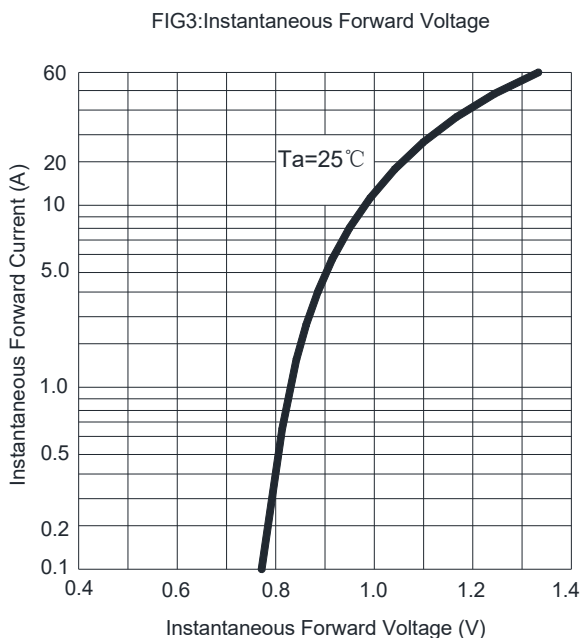
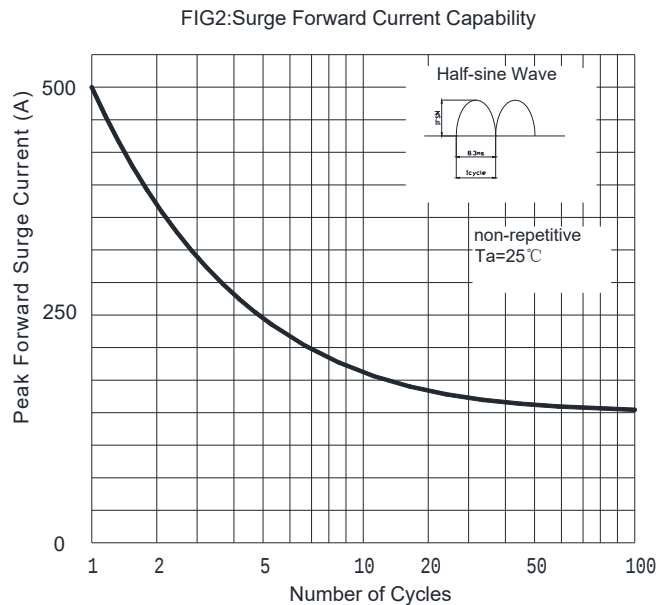


PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBPC50005~KBPC5010	A1	Approximate 24.5	50	50	500	Paper Box
KBPC50005W~KBPC5010W	A1	Approximate 22.5	50	50	500	Paper Box

FIG1:Io-Tc Curve

The graph shows the relationship between average rectified output current and case temperature. The current is constant at 50A for temperatures up to 50°C. Beyond 50°C, the current decreases linearly, reaching 0A at 150°C.

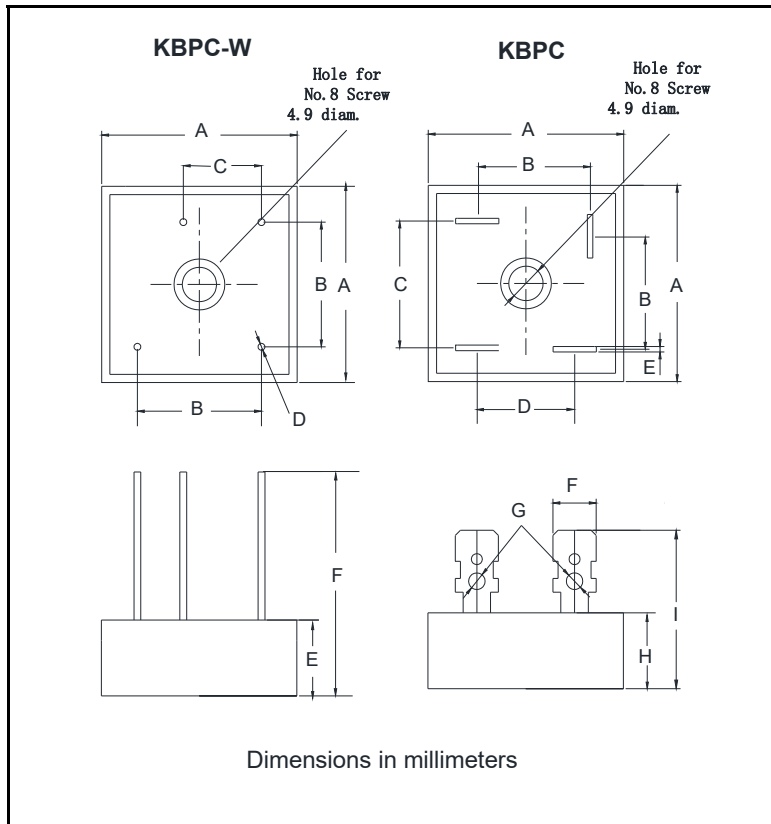
Case Temperature (°C)	Average Rectified Output Current (A)
0	50
50	50
100	25
150	0





KBPC50005(W) THRU KBPC5010(W)

■ Outline Dimensions



KBPC-W		
Dim	Min	Max
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	10.8	11.2
F	30	

KBPC		
Dim	Min	Max
A	28.2	28.8
B	15.3	17.3
C	17.1	19.1
D	13.2	15.2
E	0.75	0.85
F	6.2	6.4
G	2.3	2.5
H	10.8	11.2
I	19	



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