

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

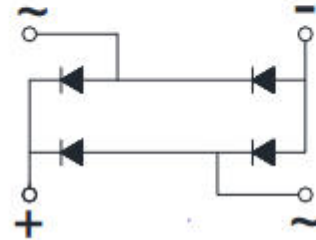
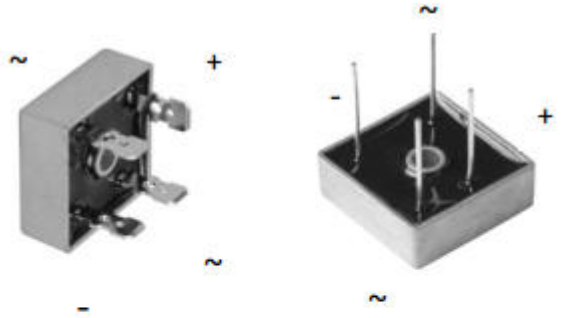
Typical Applications

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°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	V _{RRM}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, T _c =55°C	I _O	A	50						
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, T _a =25°C	I _{FSM}	A	500						
Current Squared Time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	1040						
Storage Temperature	T _{stg}	°C	-55 ~+150						
Junction Temperature	T _j	°C	-55 ~+150						
Dielectric Strength, Terminals to case, AC 1 minute	V _{dis}	KV	2.5						
Mounting Torque	TOR	kg·cm	10						

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBPC50005	KBPC5001	KBPC5002	KBPC5004	KBPC5006	KBPC5008	KBPC5010
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =25A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =V _{RRM}	10						

■ Thermal Characteristics (T_a=25°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						

■ Ordering Information (Example)

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

■ Characteristics (Typical)

FIG1:Io-Tc Curve

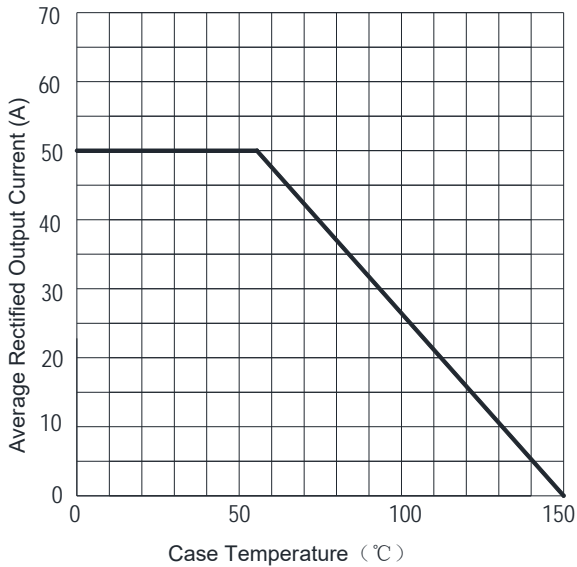


FIG2:Surge Forward Current Capability

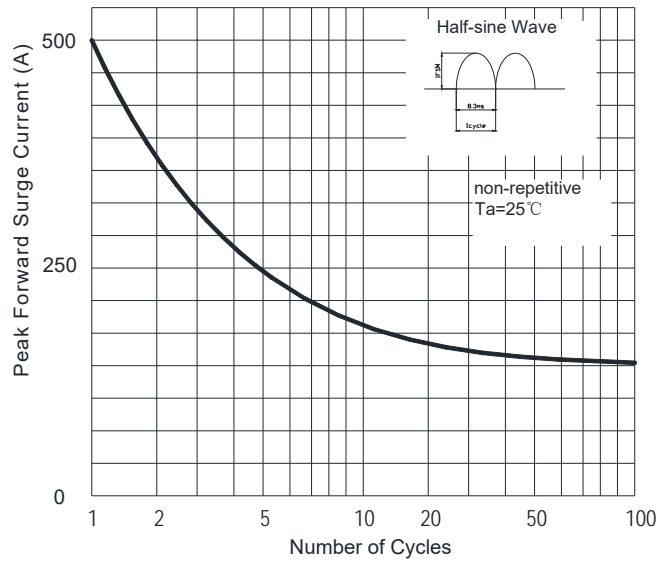


FIG3:Instantaneous Forward Voltage

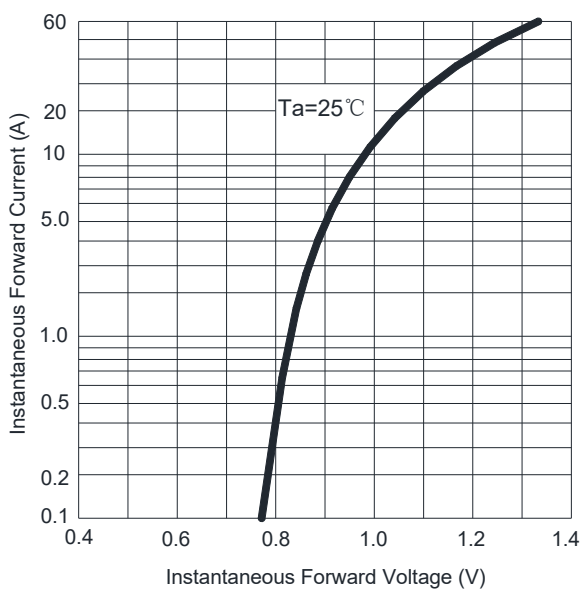
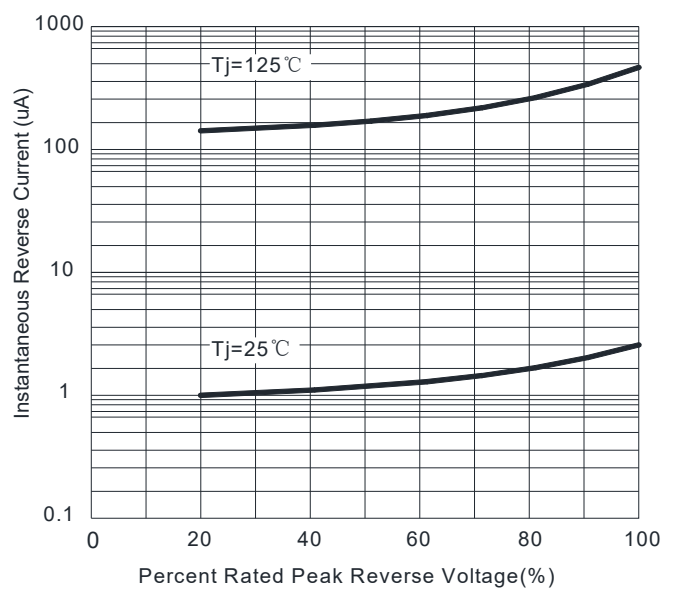
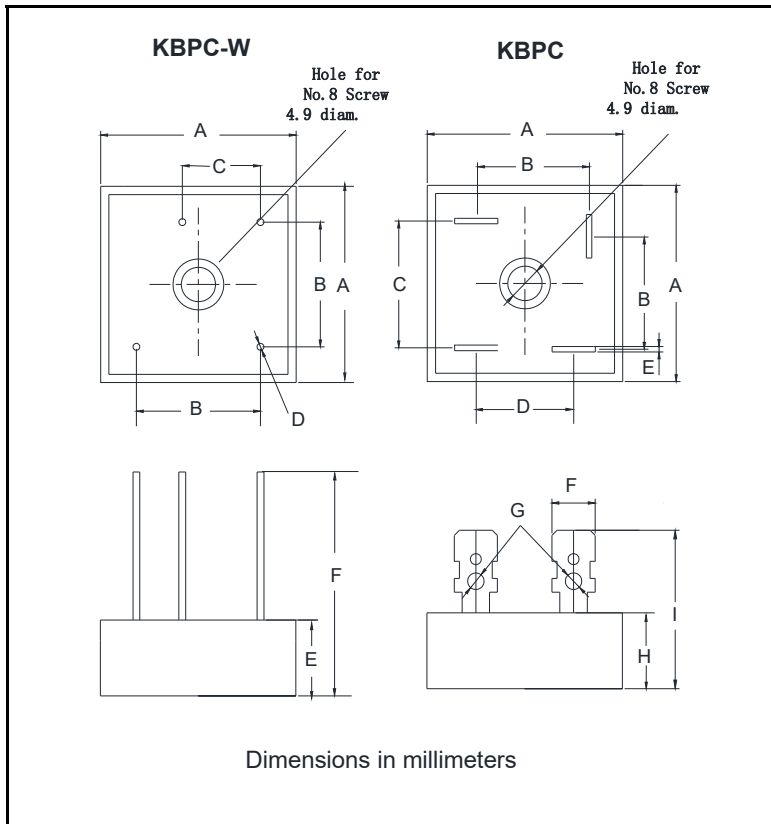


FIG4:Typical Reverse Characteristics



■ 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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