

Bridge Rectifiers

Features

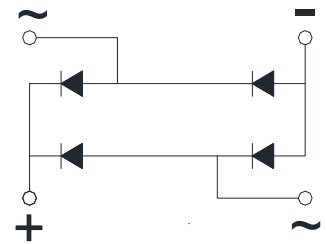
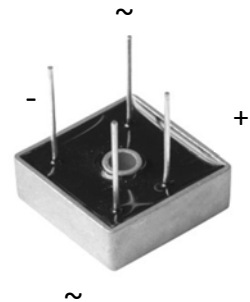
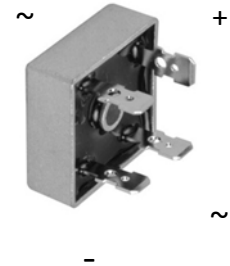
- Low thermal resistance
- UL recognition file number E230084
- High surge current capability
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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. KBPC1010W)



Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	Unit
Device marking code		KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	
Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @60Hz sine Wave, R-load, With heatsink Tc=55°C	I _O	10							A
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, Ta=25°C	I _{FSM}	220							A
Current Squared Time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I ² t	200							A ² S
Storage Temperature	T _{stg}	-55 ~+150							°C
Junction Temperature	T _J	-55 ~+150							°C
Dielectric Strength, Terminals to case, AC1minute	V _{dis}	2.5							KV



KBPC10005 (W) thru KBPC1010 (W)

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Electrical Characteristics (TA=25°C unless otherwise noted)										
Parameter	Symbol	Test Conditions	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	Uit
Maximum instantaneous forward voltage drop per diode	V_{FM}	IFM=5A	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	$V_{RM}=V_{RRM}$	10							μA

Thermal Characteristics (TA=25°C unless otherwise noted)										
Parameter	Symbol	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	Uit	
Thermal Resistance Maximum instantaneous forward voltage drop per diode	$R_{\theta J-C}$	3.4							$^{\circ}C/W$	

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG1: I_o - T_c Curve

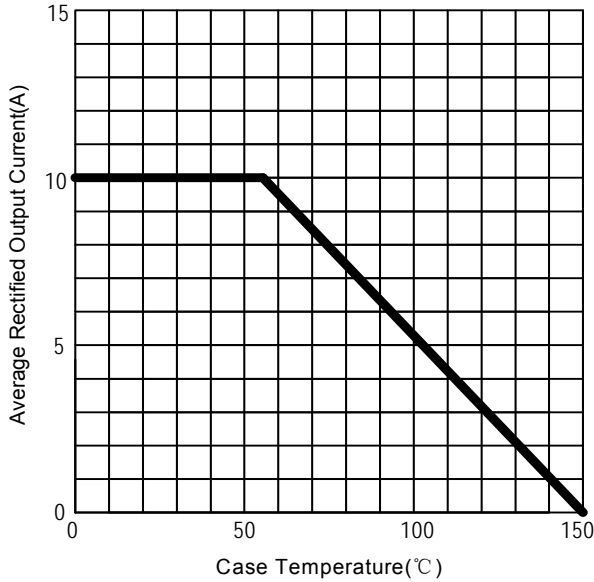


FIG2: Surge Forward Current Capability

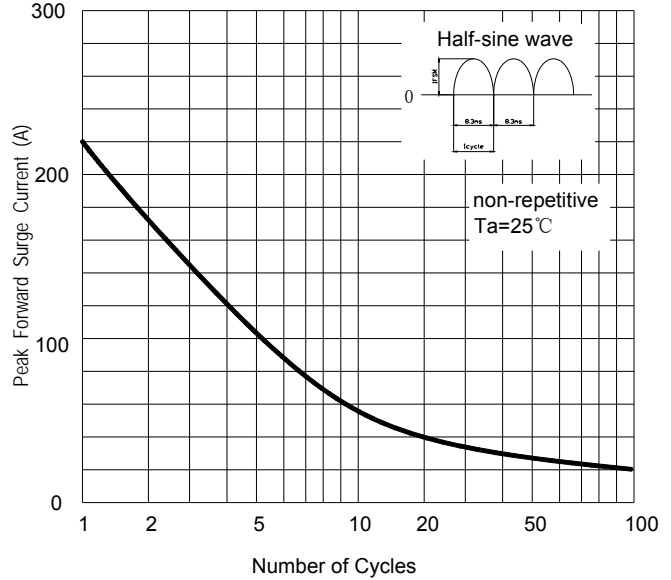


FIG3: Instantaneous Forward Voltage

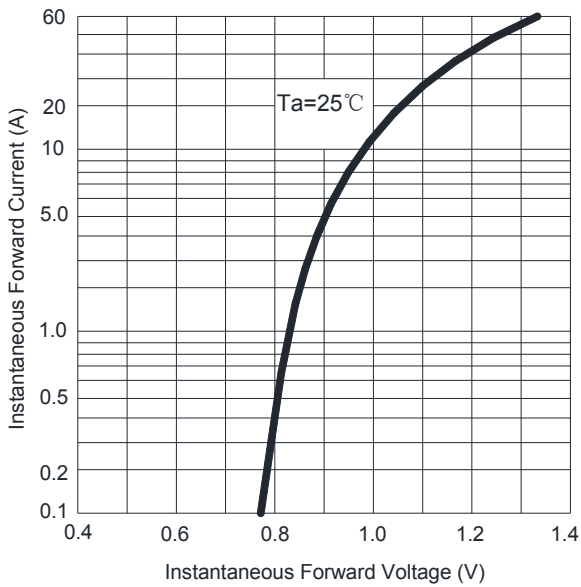
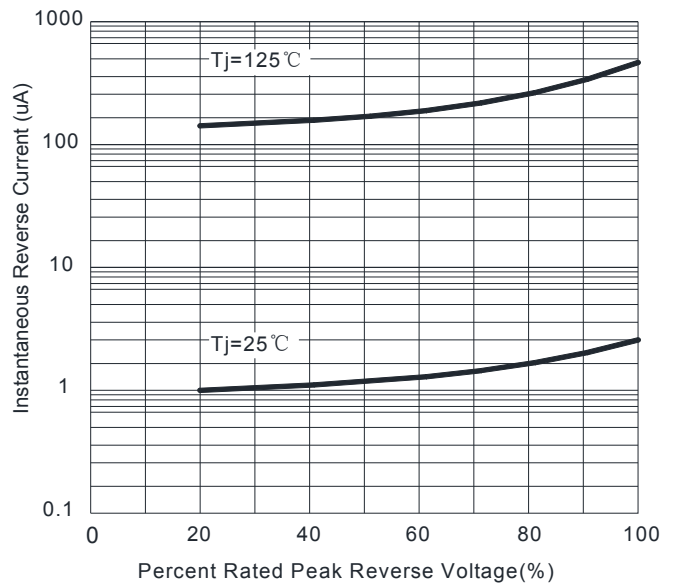
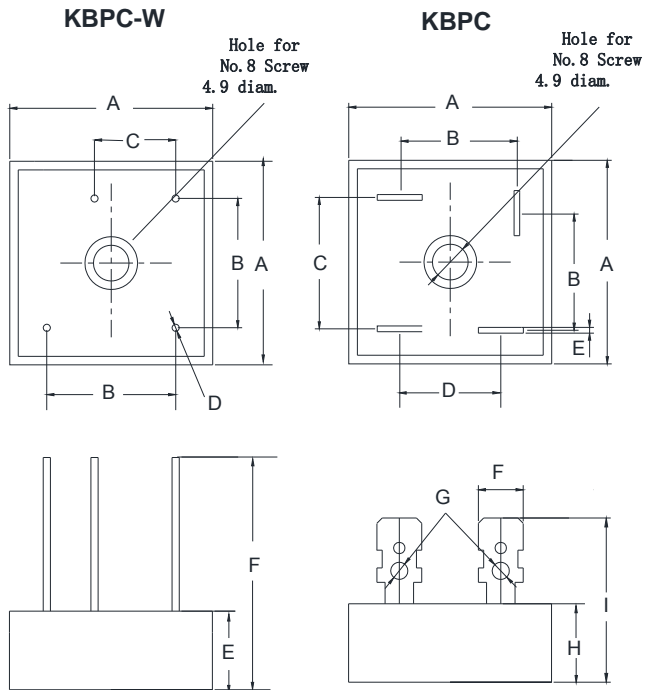


FIG4: Typical Reverse Characteristics



Package Outline Dimensions

in inches (millimeters)



Dimensions in millimeters

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	

Revision History

Document Version	Date of release	Description of changes
Rev.A	2020.03.31	First issue



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