

Bridge Rectifiers

Features

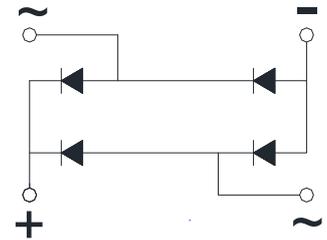
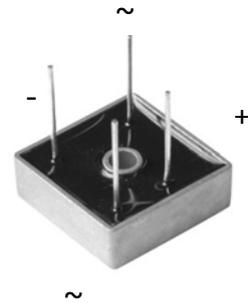
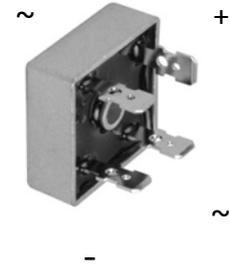
- UL recognition file number E230084
- Low thermal resistance
- High surge current capability
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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. KBPC1510W)



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

Parameter	Symbol	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	Unit
Device marking code		KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	
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	15							A
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, Ta=25°C	I_{FSM}	300							A
Current Squared Time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I^2t	375							A ² S
Storage Temperature	Tstg	-55 ~+150							°C
Junction Temperature	Tj	-55 ~+150							°C
Dielectric Strength, Terminals to case, AC1minute	Vdis	2.5							KV



KBPC15005 (W) thru KBPC1510 (W)

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Electrical Characteristics (T _A =25°C unless otherwise noted)										
Parameter	Symbol	Test Conditions	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	Uit
Maximum instantaneous forward voltage drop per diode	V _{FM}	IFM=7.5A	1.1							V
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	V _{RM} =V _{RRM}	10							μA

Thermal Characteristics (T _A =25°C unless otherwise noted)										
Parameter	Symbol	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	Uit	
Thermal Resistance Maximum instantaneous forward voltage drop per diode	R _{θJ-C}	3.4							°C/W	

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG1:Io-Tc Curve

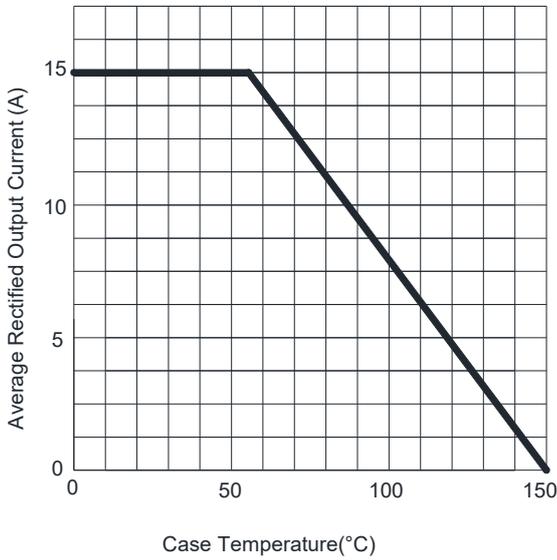


FIG2:Surge Forward Current Capability

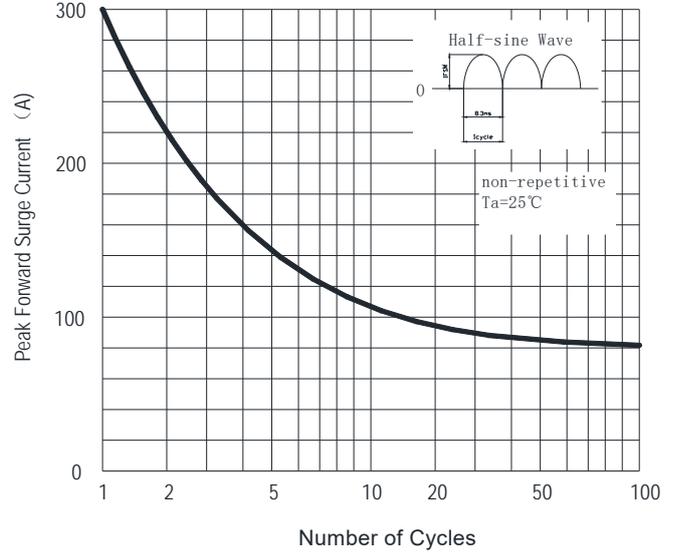


FIG3:Instantaneous Forward Voltage

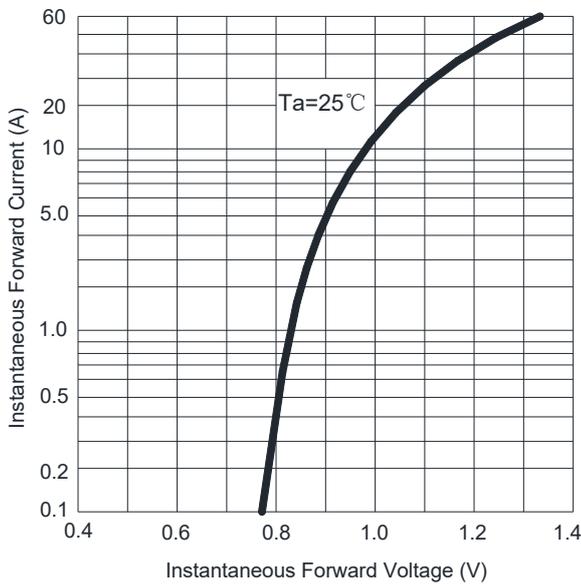
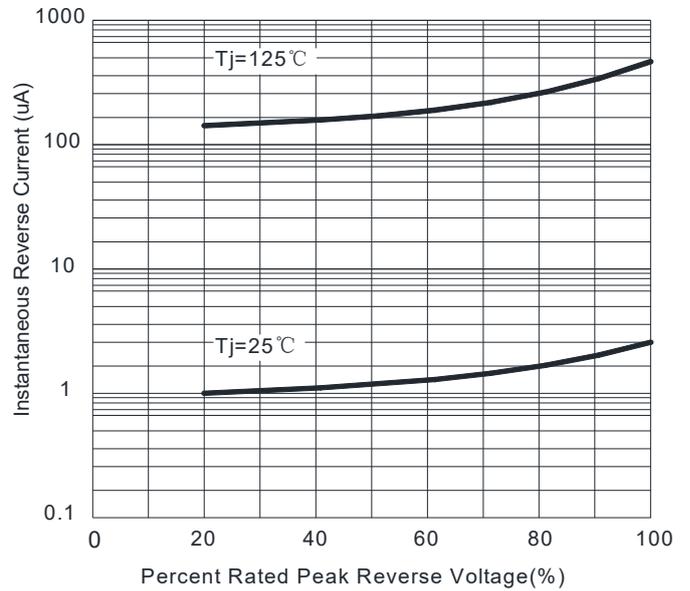
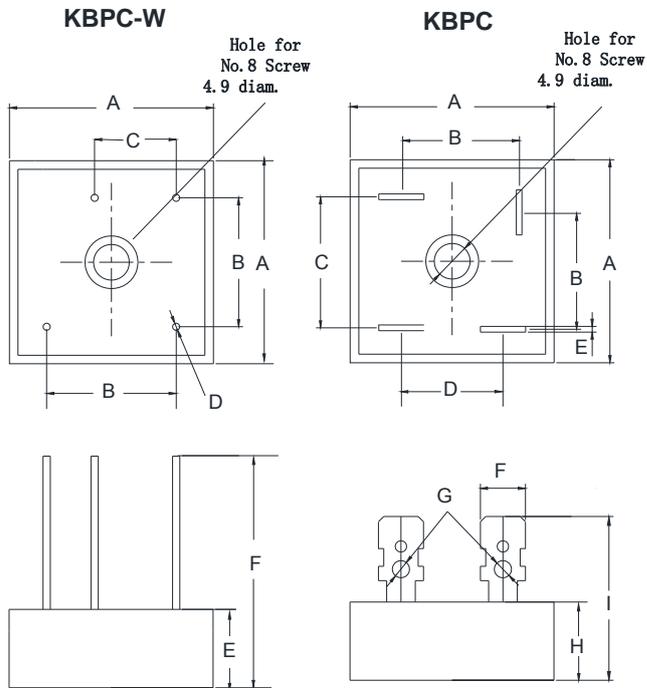


FIG4:Typical Reverse Characteristics



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	2015.04.28	First issue



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