

# KBPC40, 50/W SERIES

## 40, 50A HIGH CURRENT BRIDGE RECTIFIER

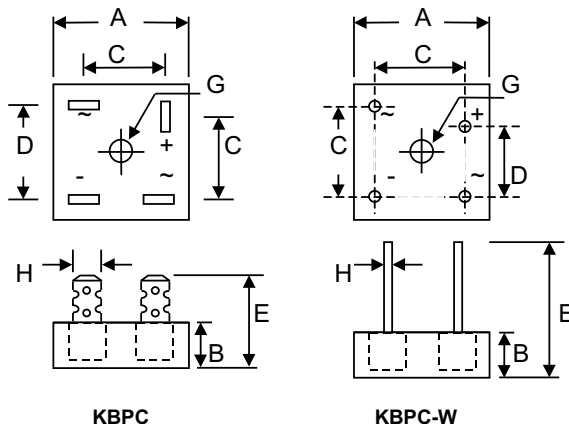
### Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Metal Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E157705

### Mechanical Data

- Case: Metal Case with Electrically Isolated Epoxy
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC 31.6 grams (approx.)  
KBPC-W 28.5 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads  
No Suffix Designates Faston Terminals



	KBPC		KBPC-W	
Dim	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	10.97	11.23	10.97	11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.86	25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø
All Dimension in mm				

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristics	Symbol	-00/W	-01/W	-02/W	-04/W	-06/W	-08/W	-10/W	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectifier Output Current @T <sub>C</sub> = 55°C	I <sub>O</sub>	40 50							A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400 400							A
Forward Voltage Drop (per element)	V <sub>FM</sub>	1.2							V
Peak Reverse Current @T <sub>C</sub> = 25°C At Rated DC Blocking Voltage @T <sub>C</sub> = 125°C	I <sub>RM</sub>	10 1.0							µA mA

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**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

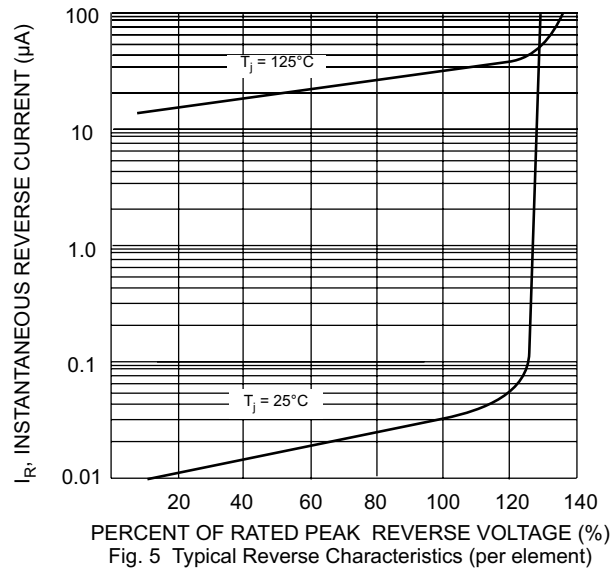
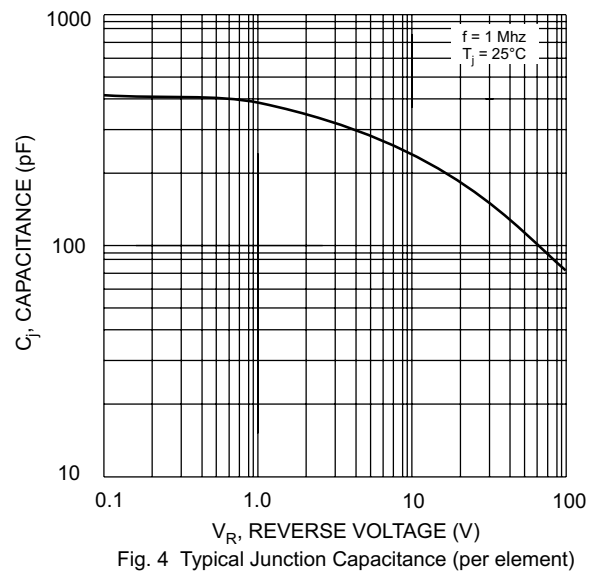
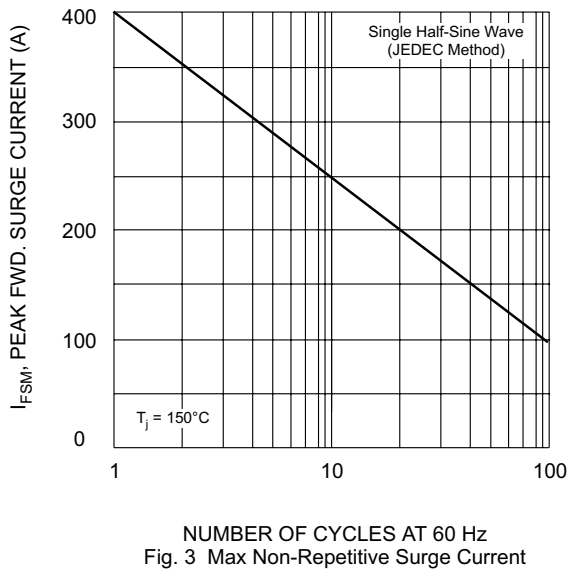
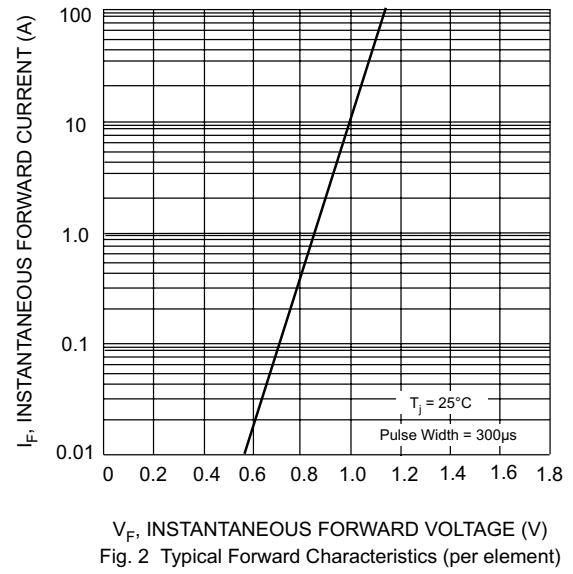
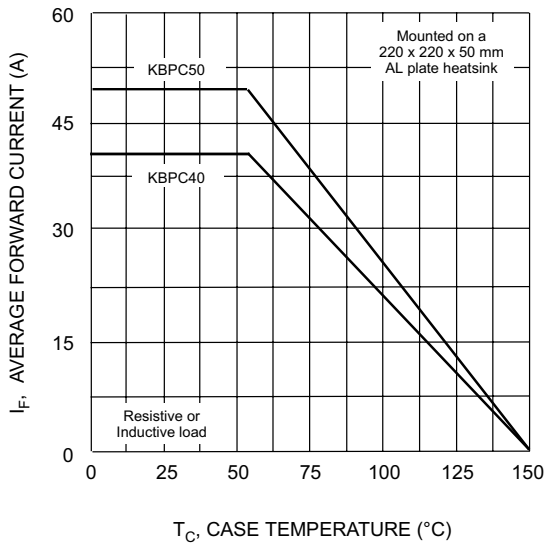
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Typical Junction Capacitance (per element) (Note 1)	C <sub>j</sub>	300	pF
Typical Thermal Resistance Junction to Case (per element) (Note 2) KBPC40 KBPC50	R <sub>θJC</sub>	1.5	K/W
RMS Isolation Voltage from Case to Lead	V <sub>ISO</sub>	2500	V
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	°C

**\* Glass passivated forms are available upon request.**

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance junction to case mounted on heatsink.



## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPCxx00	Square Bridge	50 Units/Box
KBPCxx00W	Square Bridge	50 Units/Box
KBPCxx01	Square Bridge	50 Units/Box
KBPCxx01W	Square Bridge	50 Units/Box
KBPCxx02	Square Bridge	50 Units/Box
KBPCxx02W	Square Bridge	50 Units/Box
KBPCxx04	Square Bridge	50 Units/Box
KBPCxx04W	Square Bridge	50 Units/Box
KBPCxx06	Square Bridge	50 Units/Box
KBPCxx06W	Square Bridge	50 Units/Box
KBPCxx08	Square Bridge	50 Units/Box
KBPCxx08W	Square Bridge	50 Units/Box
KBPCxx10	Square Bridge	50 Units/Box
KBPCxx10W	Square Bridge	50 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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