

# KBPC15, 25, 35/W SERIES

# 15, 25, 35A HIGH CURRENT BRIDGE RECTIFIER

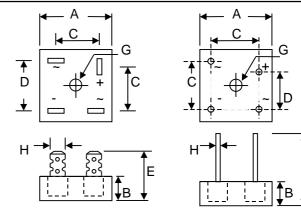
## Features

- 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

Е

	145	50	K880 W			
	KBPC		KBPC-W			
Dim	Min	Max	Min	Max		
Α	28.40	28.70	28.40	28.70		
В	10.97	11.23	10.97	11.23		
С	15.70	16.70	17.10	19.10		
D	17.50	18.50	10.90	11.90		
Е	22.86	25.40	30.50			
G Hole for #10 screw, 5.08Ø Nominal						
Н	6.35 T	6.35 Typical		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 Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectifier Output CurrentKBPC15 $@T_c = 60^{\circ}C$ KBPC35	lo				15 25 35				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	IFSM				300 400 400				A
Forward Voltage Drop (per element) $\begin{array}{l} \text{KBPC15 } @I_F = 7.5\text{A} \\ \text{KBPC25 } @I_F = 12.5\text{A} \\ \text{KBPC35 } @I_F = 17.5\text{A} \end{array}$	Vfm				1.2				V
Peark Reverse Current $@T_c = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_c = 125^{\circ}C$	IRM				10 1.0				μA mA
I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1) KBPC15 KBPC25 KBPC35	l <sup>2</sup> t				373 373 664				A²s

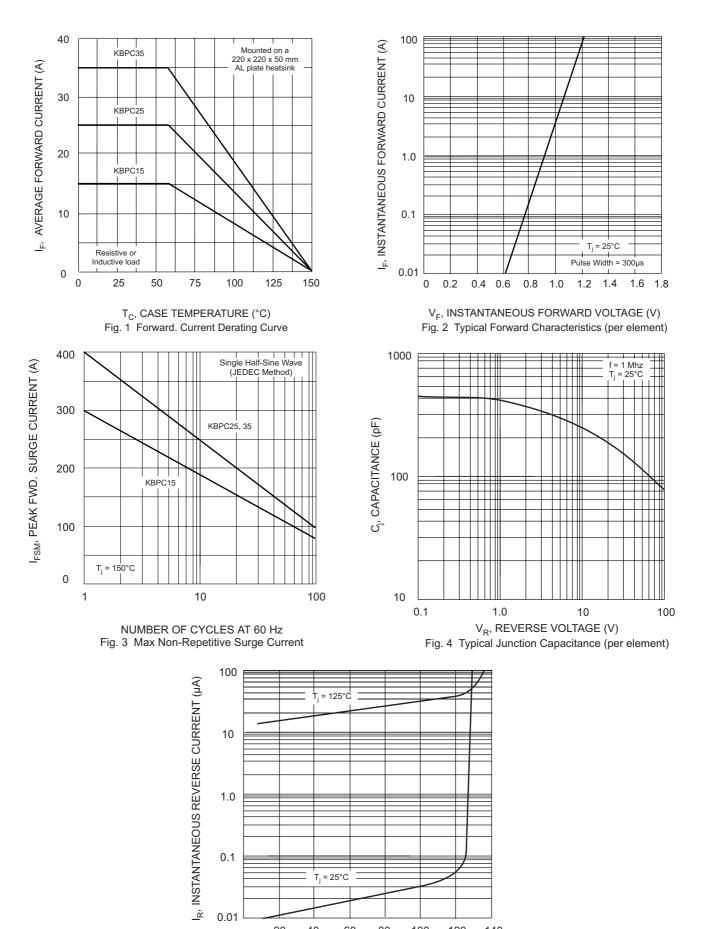
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Typical Junction Capacitance (per element) (Note 2)	Cj	300	pF
Typical Thermal Resistance Junction to Case (per element) (Note 3) KBPC15 KBPC25 KBPC35	R⊕JC	6.3 3.8 2.7	K/W
RMS Isolation Voltage from Case to Lead	Viso	2500	V
Operating and Storage Temperature Range	Тј, Тѕтс	-65 to +150	°C

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

Note: 1. Measured at non-repetitive, for t > 1ms and < 8.3ms.

- Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
  Thermal resistance junction to case mounted on heatsink.



<sup>20 40 60 80 100 120 140</sup> PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typical Reverse Characteristics (per element)

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

### ORDERING INFORMATION

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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