

KBPC1000/W – KBPC1010/W

10A HIGH CURRENT BRIDGE RECTIFIER

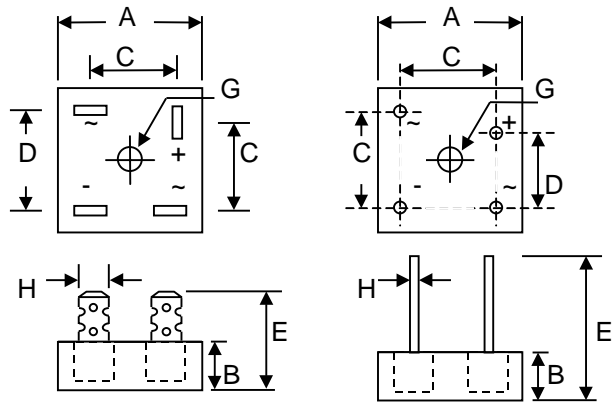
Features

- 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	KBPC		KBPC-W	
	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				

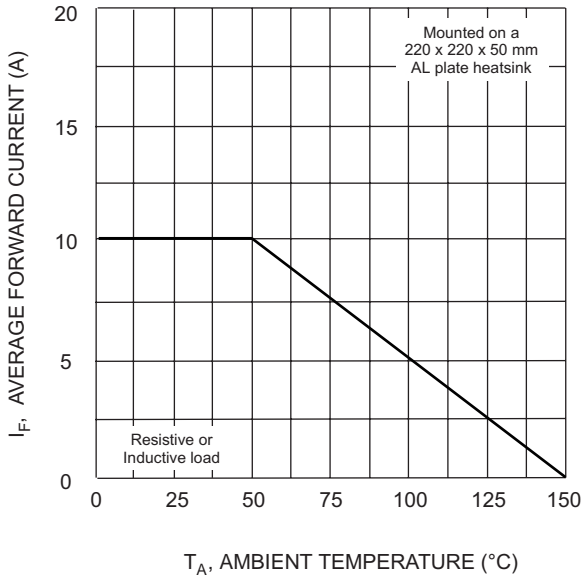
Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

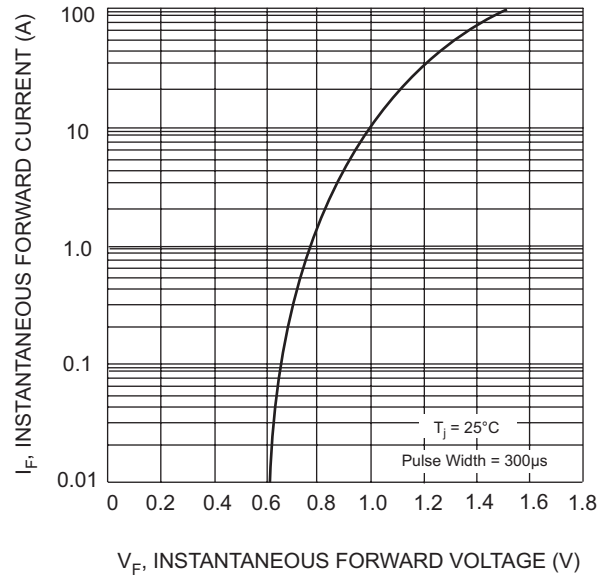
Characteristic	Symbol	KBPC 1000/W	KBPC 1001/W	KBPC 1002/W	KBPC 1004/W	KBPC 1006/W	KBPC 1008/W	KBPC 1010/W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_R(\text{RMS})$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 50^\circ\text{C}$	I_O	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Forward Voltage (per element) @ $I_F = 5.0\text{A}$	V_{FM}	1.2							V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	I_{RM}	10 1.0							μA mA
Typical Junction Capacitance (Note 1)	C_j	300							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	6.3							K/W
RMS Isolation Voltage from Case to Lead	V_{ISO}	2500							V
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							$^\circ\text{C}$

* Glass passivated forms are available upon request.

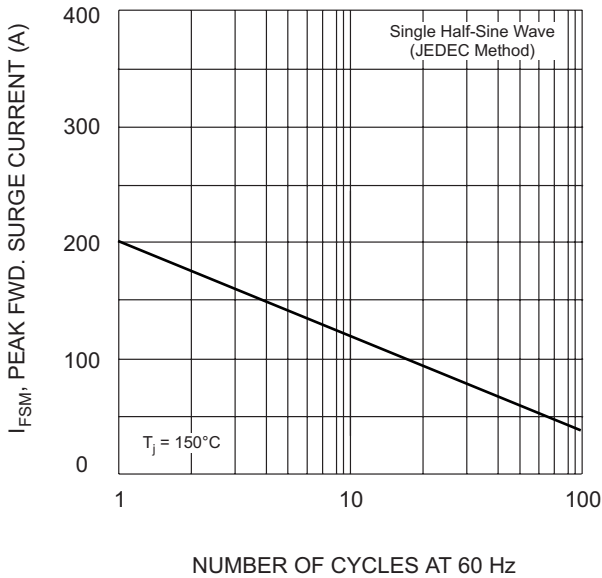
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance junction to case per element mounted on heatsink.



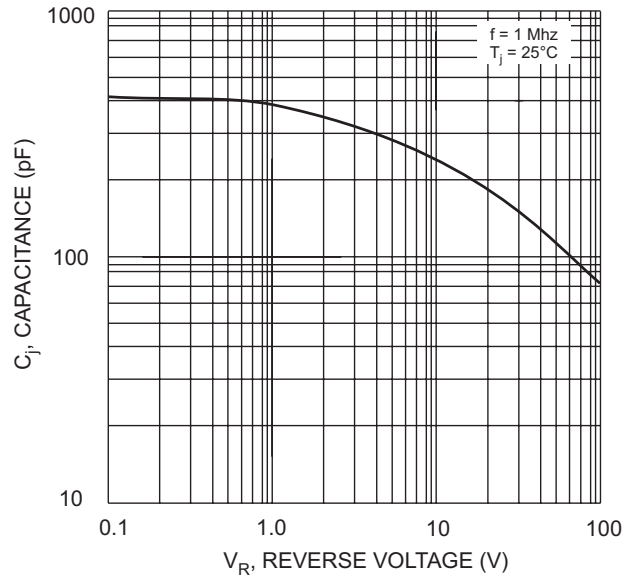
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



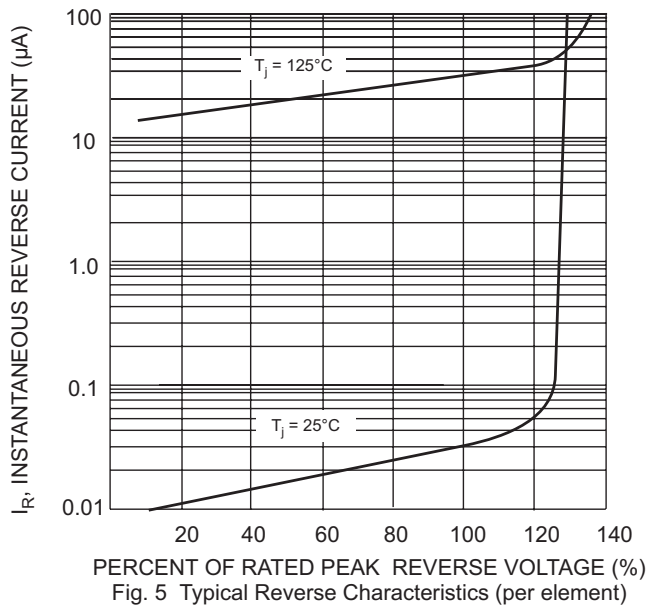
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics (per element)

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC1000	Square Bridge	50 Units/Box
KBPC1000W	Square Bridge	50 Units/Box
KBPC1001	Square Bridge	50 Units/Box
KBPC1001W	Square Bridge	50 Units/Box
KBPC1002	Square Bridge	50 Units/Box
KBPC1002W	Square Bridge	50 Units/Box
KBPC1004	Square Bridge	50 Units/Box
KBPC1004W	Square Bridge	50 Units/Box
KBPC1006	Square Bridge	50 Units/Box
KBPC1006W	Square Bridge	50 Units/Box
KBPC1008	Square Bridge	50 Units/Box
KBPC1008W	Square Bridge	50 Units/Box
KBPC1010	Square Bridge	50 Units/Box
KBPC1010W	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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