

SENSITRON SEMICONDUCTOR

KBPC1000P/W – KBPC1010P/W 10A HIGH CURRENT BRIDGE RECTIFIER

Data Sheet 1296 Rev.A

Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E223064

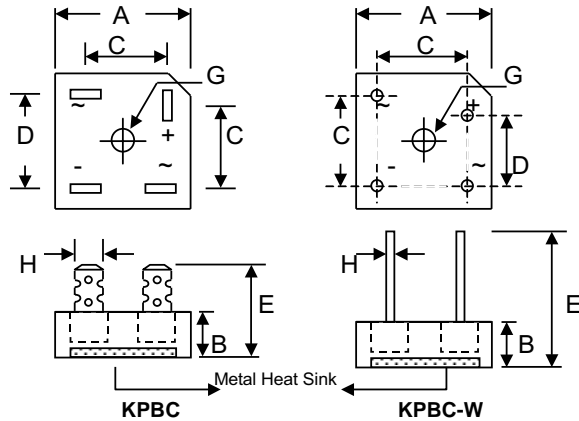
Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #8 Screw
- Weight: KBPC-P 24 grams (approx.)
KBPC-PW 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads

No Suffix Designates Faston Terminals

*All Models are Available on B(Height)=7.62mm Max. Epoxy Case



Dim	KBPC-P				KBPC-PW			
	Min	Max	Min	Max	Min	Max	Min	Max
A	28.40	28.70	1.118	1.130	28.40	28.70	1.118	1.130
B	10.97	11.23	0.432	0.442	10.97	11.23	0.432	0.442
C	15.70	16.70	0.618	0.657	17.10	19.10	0.673	0.752
D	17.50	18.50	0.689	0.728	10.90	11.90	0.429	0.469
E	22.86	25.40	0.90	1.00	30.50	—	1.201	—
G	Hole for #8 screw, 4.90mm(0.193inch)ØNormina							
H	6.35 Typical		0.25 Typical		0.97Ø	1.07Ø	0.038Ø	0.042Ø
	In mm		In inch		In mm		In inch	

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	KBPC 1000P/W	KBPC 1001P/W	KBPC 1002P/W	KBPC 1004P/W	KBPC 1006P/W	KBPC 1008P/W	KBPC 1010P/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(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @T _A = 50°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 = 5.0A	V _{FM}	1.1							V
Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 125°C	I _{RM}	10 0.5							µA mA
Typical Junction Capacitance (Note 1)	C _j	200							pF
Typical Thermal Resistance (Note 2)	R _{θJC}	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 +125							°C

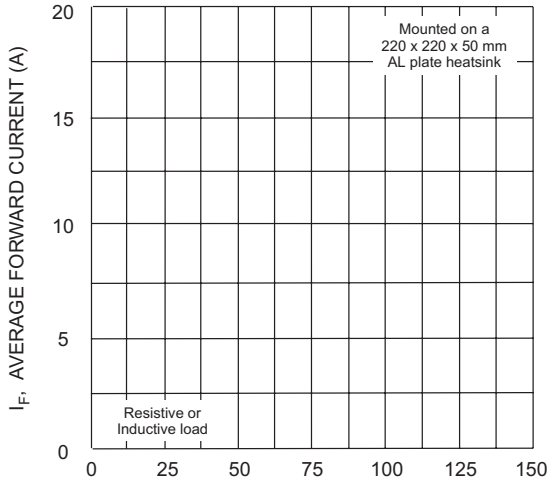
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance junction to case per element mounted on heatsink.

• 221 West Industry Court ■ Deer Park, NY 11729-4681 ■ (631) 586-7600 FAX (631) 242-9798 •
• World Wide Web Site - <http://www.sensitron.com> • E-Mail Address - sales@sensitron.com •

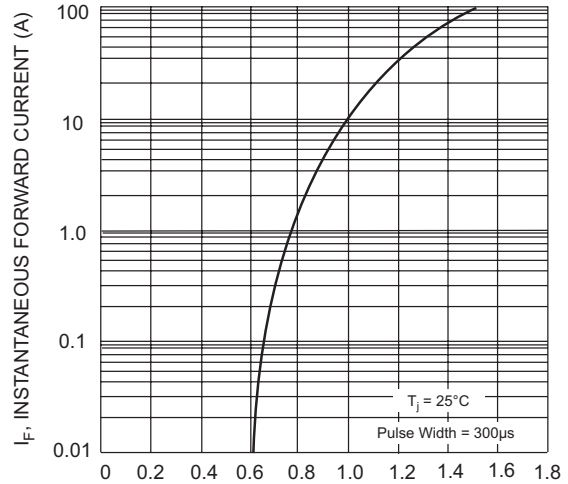
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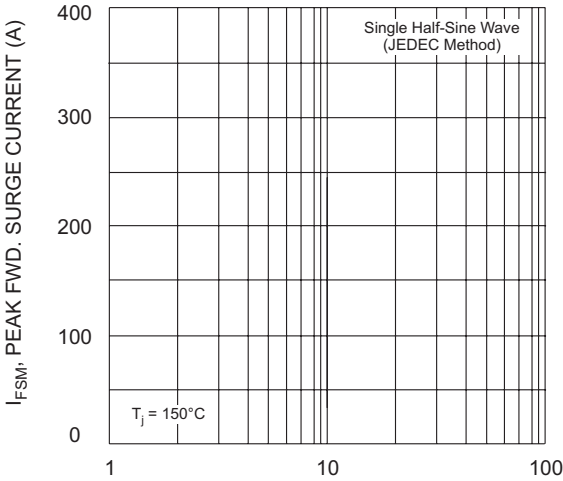
KBPC1000P/W – KBPC1010P/W
10A HIGH CURRENT BRIDGE RECTIFIER



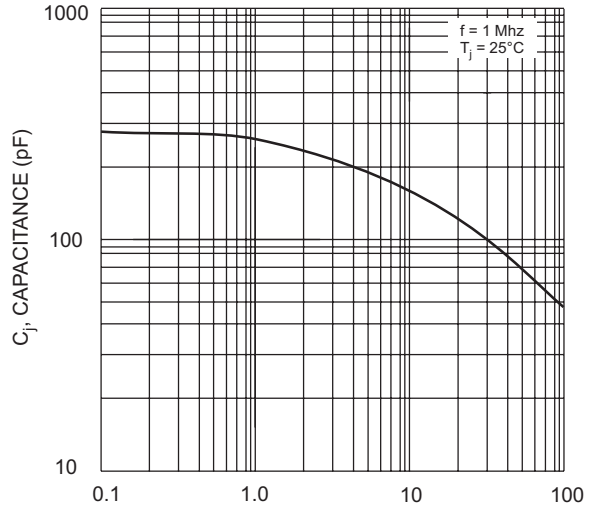
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



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)

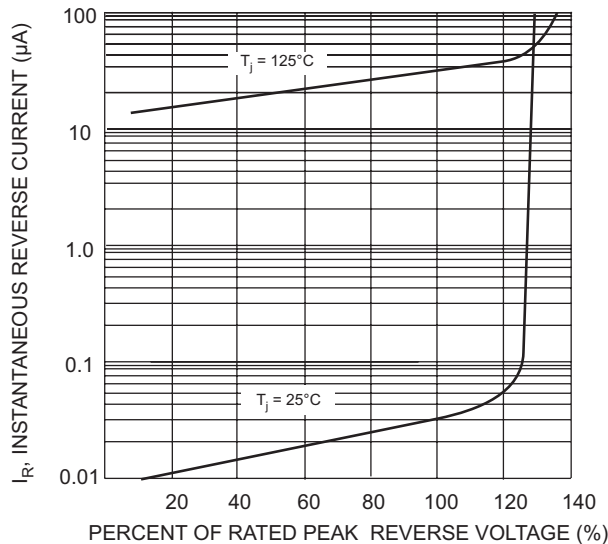


Fig. 5 Typical Reverse Characteristics (per element)

TECHNICAL DATA

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