SANGDEST
MICROELECTRONICS

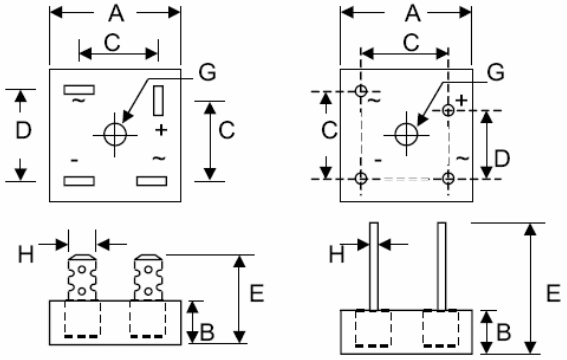
KBPC1000/W- KBPC1010/W
10A HIGH CURRENT BRIDGE RECTIFI

Technical Data
Data Sheet N0514, Rev.-

Green Products

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
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



	KBPC				KBPC-W			
Dim	Min	Max	Min	Max	Min	Max	Min	Max
A	28.40	28.7	1.118	1.130	28.40	28.7	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	

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 31.6 grams (approx.)
  KBPC-W 28.5 grams (approx.)
- Marking: Part Name,SSG and Date Code

"W" Suffix Designates Wire Leads
No Suffix Designates Faston Terminals
*All Models are Available on B(Height)=7.62mm Max. Epoxy Case

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 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	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @T_A = 50°C	Io	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}	1.2							V
Peak Reverse Current @T_C = 25°C At Rated DC Blocking Voltage @T_C = 125°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							°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.

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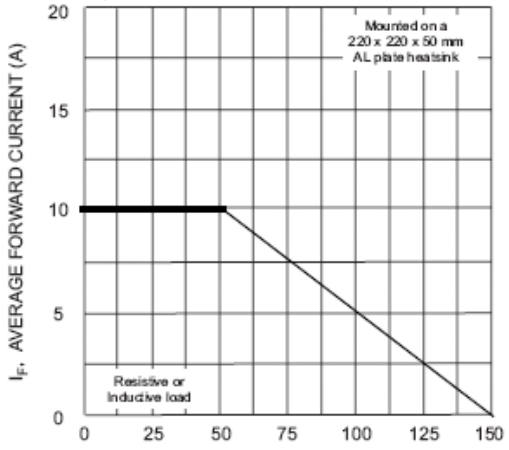
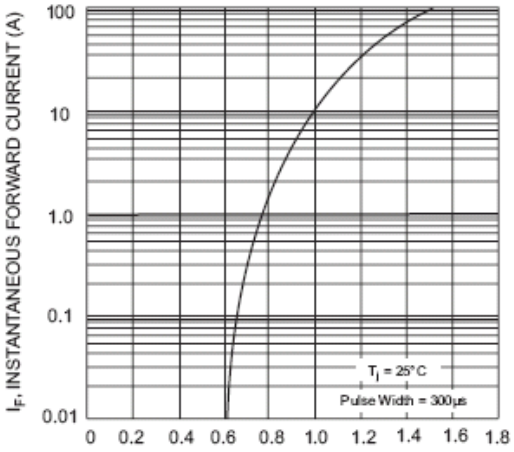
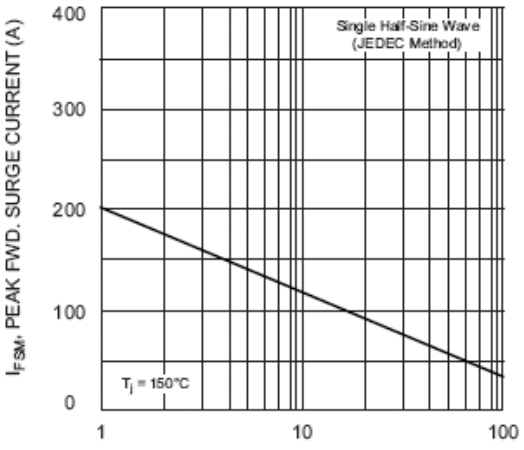


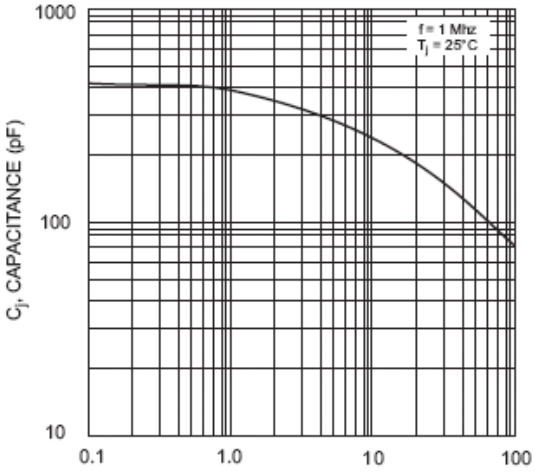
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Forward. Current Derating Curve



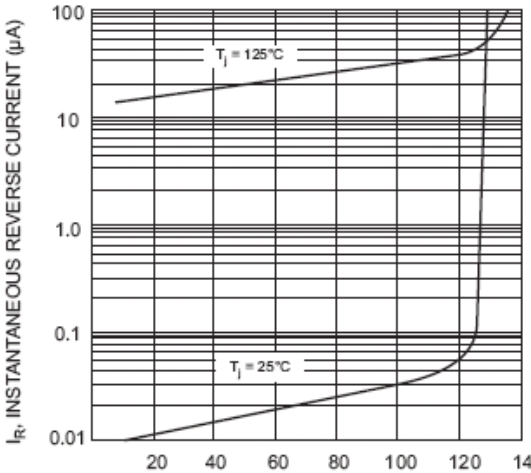
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



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)

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