

SENSITRON

SEMICONDUCTOR

KBU1000 – KBU1010

10A BRIDGE RECTIFIER

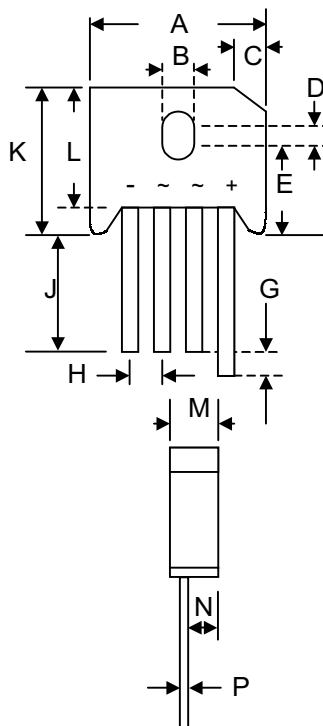
Data Sheet 1314, Rev. A

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- UL Recognized File # E223064

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 8.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



KBU				
Dim	Min	Max	Min	Max
A	22.70	23.70	0.894	0.933
B	3.80	4.10	0.150	0.161
C	4.20	4.70	0.165	0.185
D	1.70	2.20	0.067	0.087
E	10.30	11.30	0.406	0.445
G	4.50	6.80	0.177	0.268
H	4.60	5.60	0.181	0.220
J	25.40	—	1.00	—
K	—	19.30	—	0.760
L	16.80	17.80	0.661	0.701
M	6.60	7.10	0.260	0.280
N	4.70	5.20	0.185	0.205
P	1.20	1.30	0.047	0.051
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	KBU 1000	KBU 1001	KBU 1002	KBU 1004	KBU 1006	KBU 1008	KBU 1010	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 _C = 100°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}	300							A
Forward Voltage (per element) @I _F = 5.0A	V _{FM}	1.0							V
Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 100°C	I _R	10 1.0							μA mA
Rating for Fusing (t < 8.3ms) (Note 1)	I _t ²	373							A ² s
Typical Thermal Resistance (Note 2)	R _{θJC}	8.0							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150							°C

Note: 1. Non-repetitive for t > 1ms and < 8.3ms.

2. Thermal resistance junction to case per element mounted on PC board with 13.0x13.0x0.03mm thick land areas.

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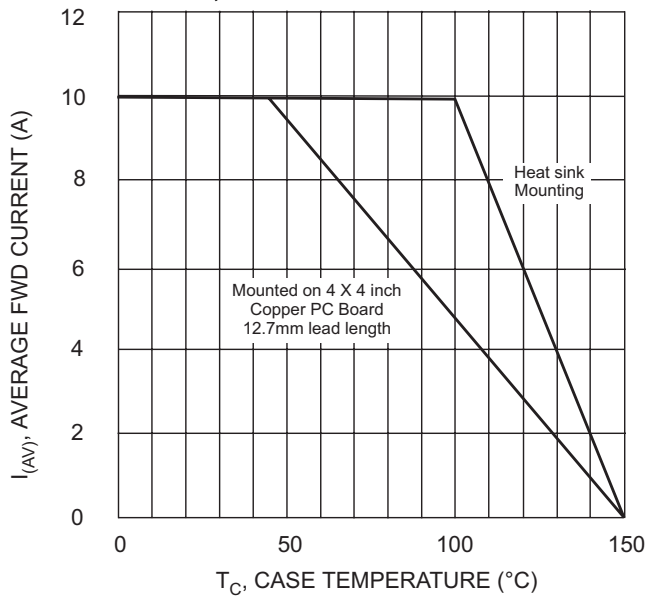


Fig. 1 Forward Current Derating Curve

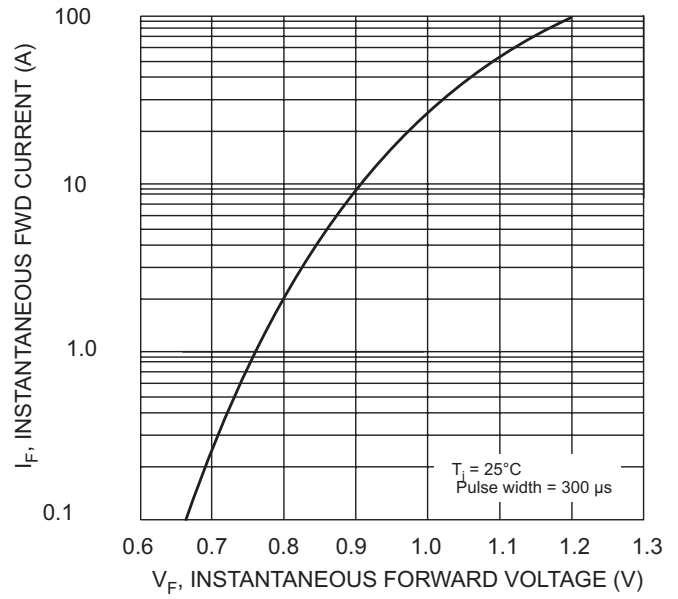


Fig. 2 Typical Forward Characteristics, per element

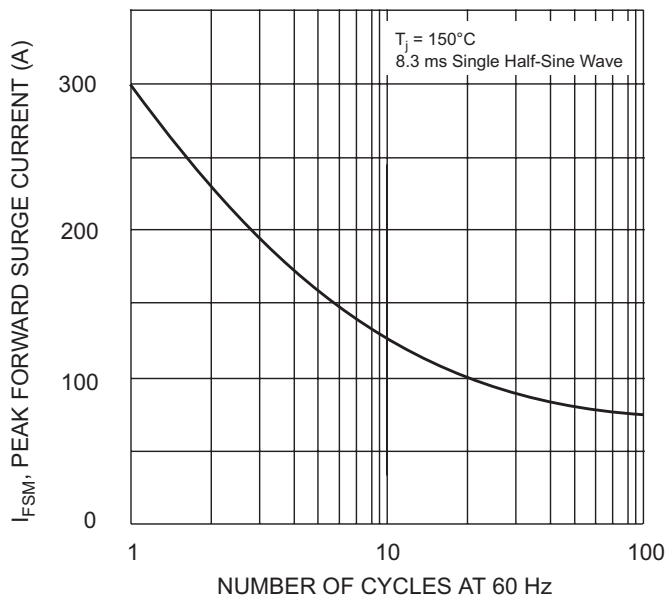


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

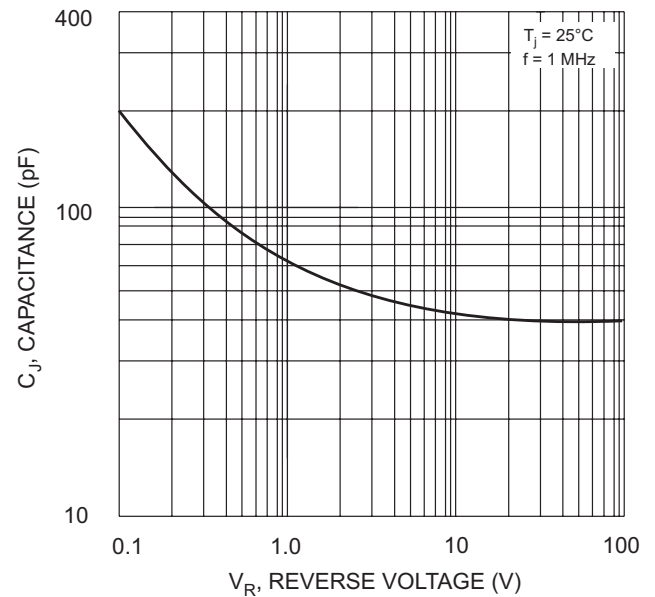


Fig. 4 Typical Junction Capacitance per element

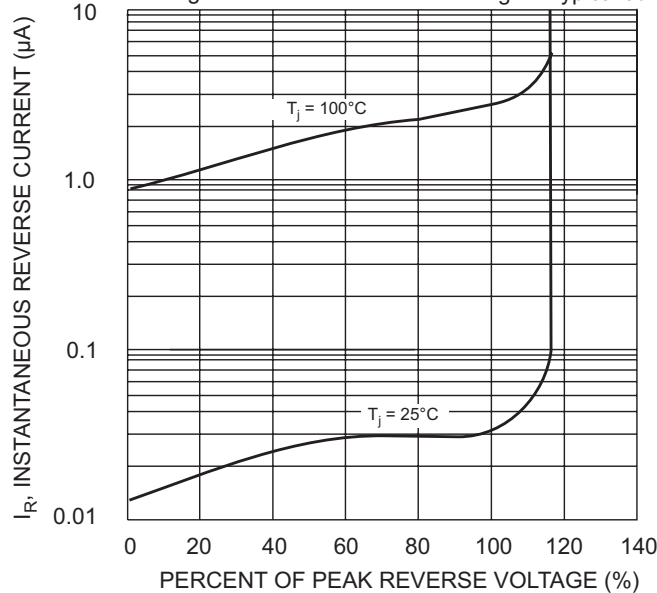


Fig. 5 Typical Reverse Characteristics

TECHNICAL DATA

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