

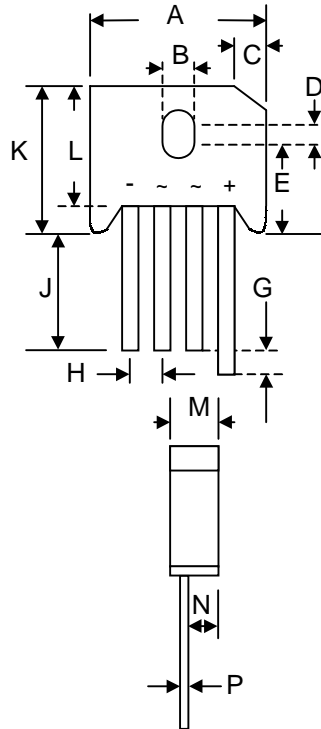
KBU1000 – KBU1010

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

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
A	22.70	23.70
B	3.80	4.10
C	4.20	4.70
D	1.70	2.20
E	10.30	11.30
G	4.50	6.80
H	4.60	5.60
J	25.40	—
K	—	19.30
L	16.80	17.80
M	6.60	7.10
N	4.70	5.20
P	1.20	1.30
All Dimensions 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	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 @ $T_C = 100^{\circ}\text{C}$	I_O	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Forward Voltage (per element) @ $I_F = 5.0\text{A}$	V_{FM}	1.0							V
Peak Reverse Current @ $T_C = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_C = 100^{\circ}\text{C}$	I_R	10 1.0							μA mA
Rating for Fusing ($t < 8.3\text{ms}$) (Note 1)	I_t^2	373							A^2s
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	8.0							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							$^{\circ}\text{C}$

Note: 1. Non-repetitive for $t > 1\text{ms}$ and $< 8.3\text{ms}$.
2. Thermal resistance junction to case per element mounted on PC board with 13.0x13.0x0.03mm thick land areas.

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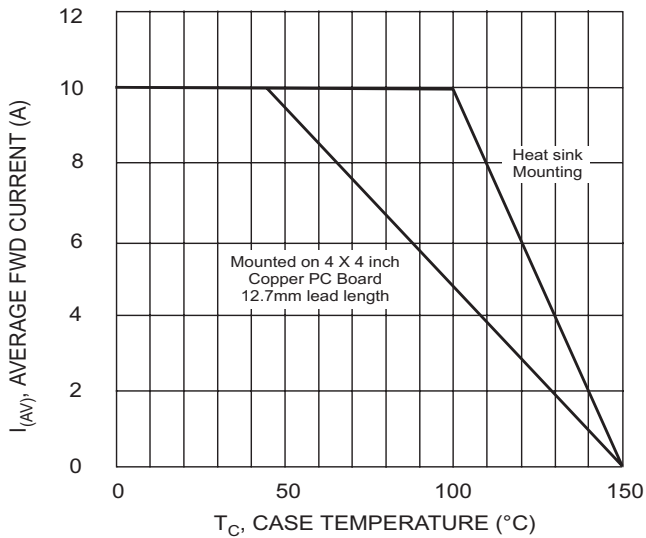


Fig. 1 Forward Current Derating Curve

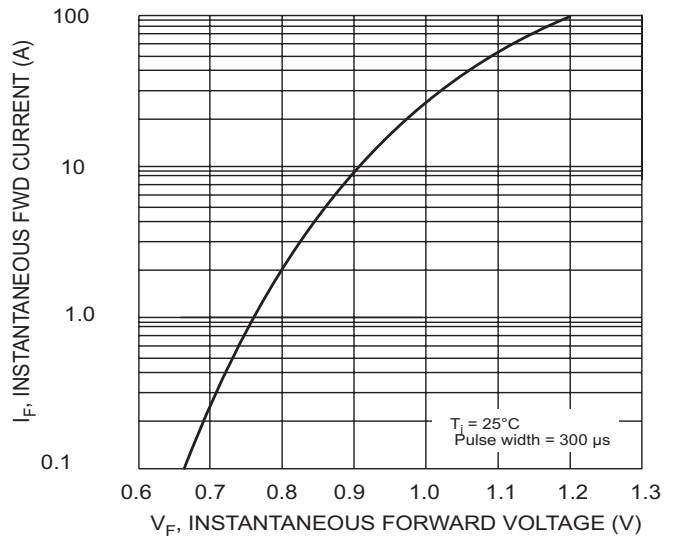


Fig. 2 Typical Forward Characteristics, per element

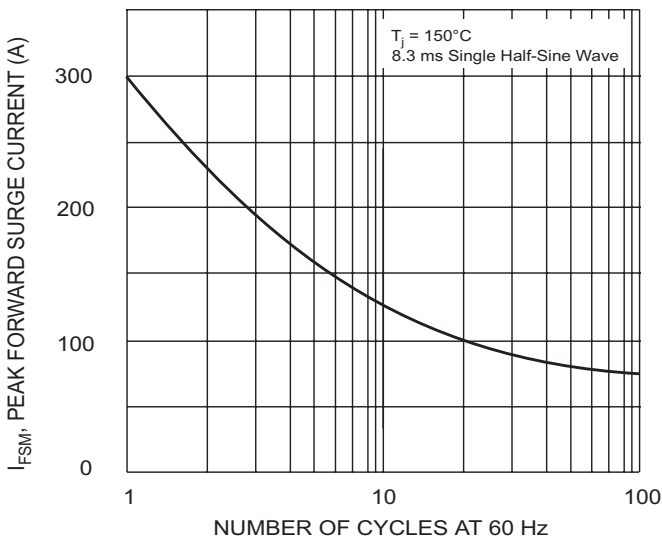


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

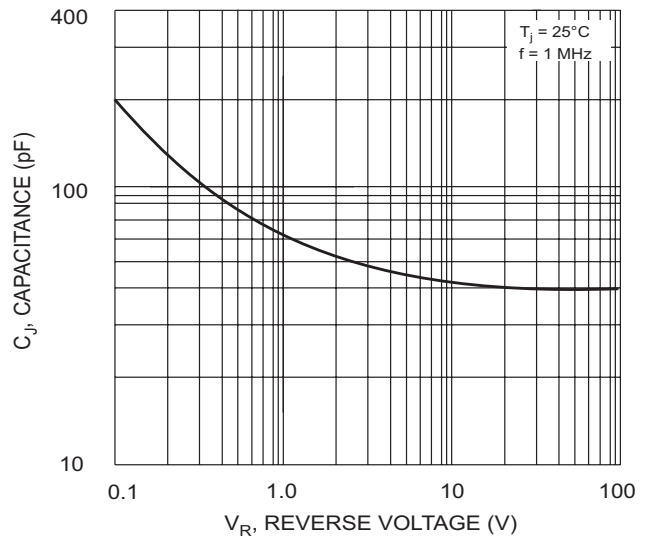


Fig. 4 Typical Junction Capacitance per element

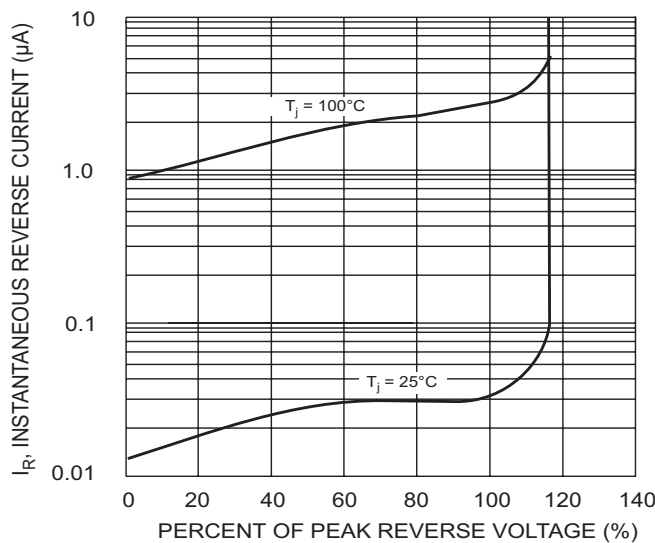


Fig. 5 Typical Reverse Characteristics