Silicon Bridge Rectifiers

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KBU600 Thru 610

Reverse Voltage: 50 - 1000 Volts
Forward Current: 6.0 Amp

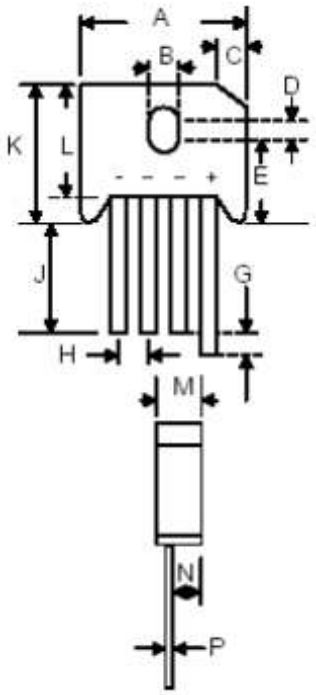
Features

- 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
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

KBU



KBU		
Dim	**Min**	**Max**
A	22.7	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 Characterics

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

CHARACTERISTICS	Symbol	KBU 600	KBU 601	KBU 602	KBU 604	KBU 606	KBU 608	KBU 610	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 = 100°C	I_O	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250							A
Forward Voltage (per element) @I_F = 3.0A	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							uA mA
Rating for Fusing (t < 8.3ms) (Note1)	I^2t	166							A^2s
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	4.2							K/W
Operating and Storage Temperature Range	Tj, T_{STG}	-65 to +150							°C

Note: 1. Non-repetitive for t > 1ms and < 8.3ms.
2. Thermal resistance junction to ambient mounted on PC board with 13.0 x 13.0 x 0.03mm thick land areas.

Rating and Characteristic Curves (KBU600 - KBU610)

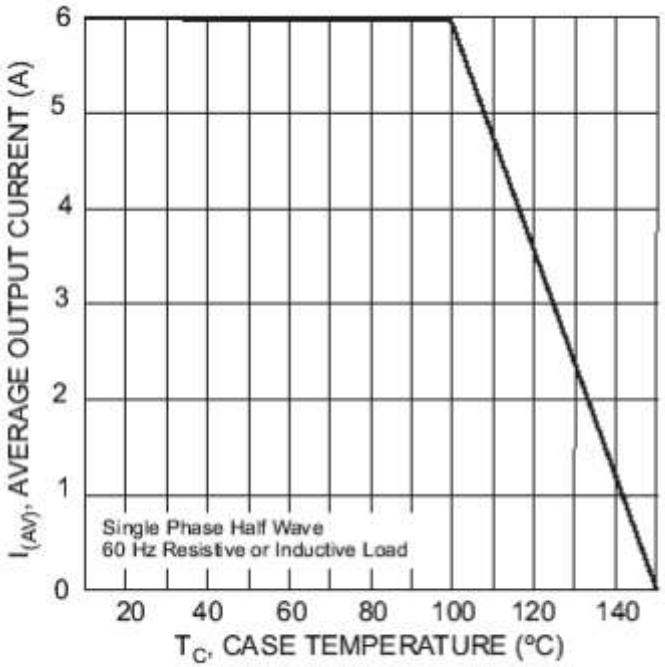


Fig. 1 Forward Current Derating Curve

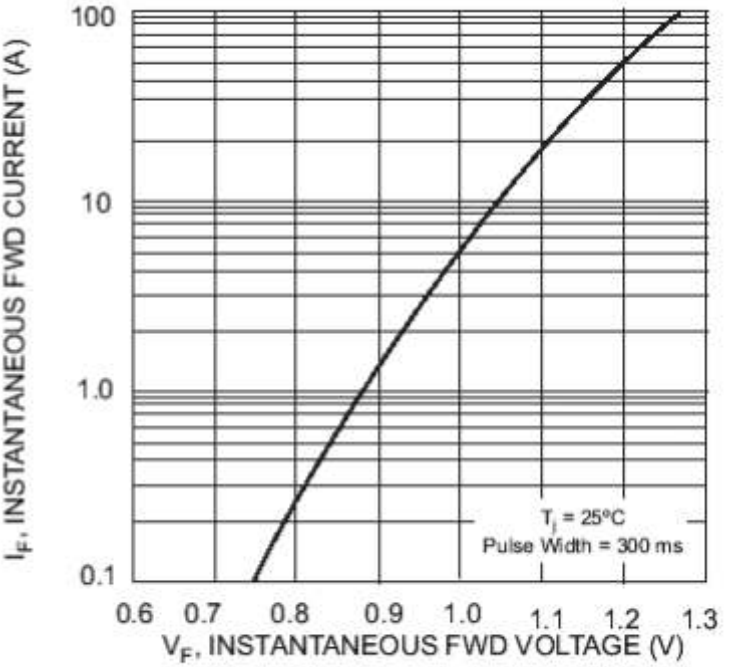


Fig. 2 Typical Forward Characteristics, per element

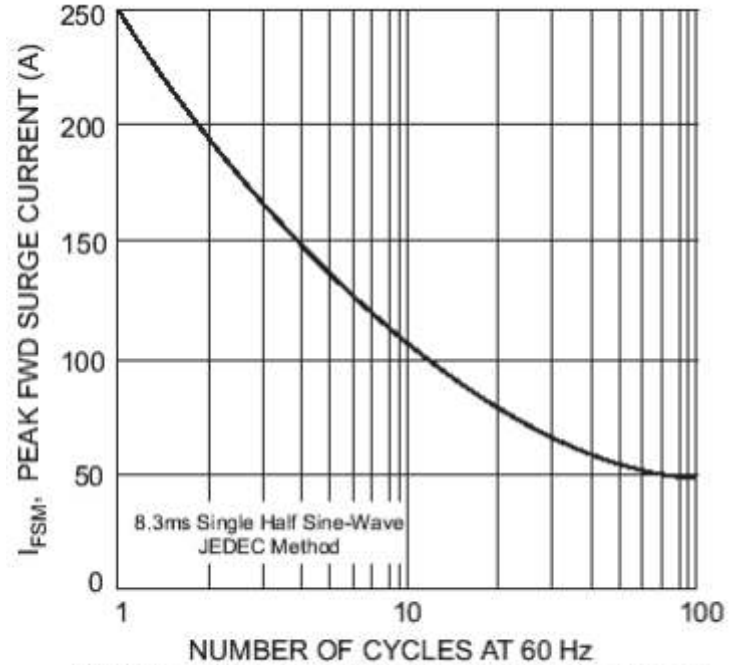


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

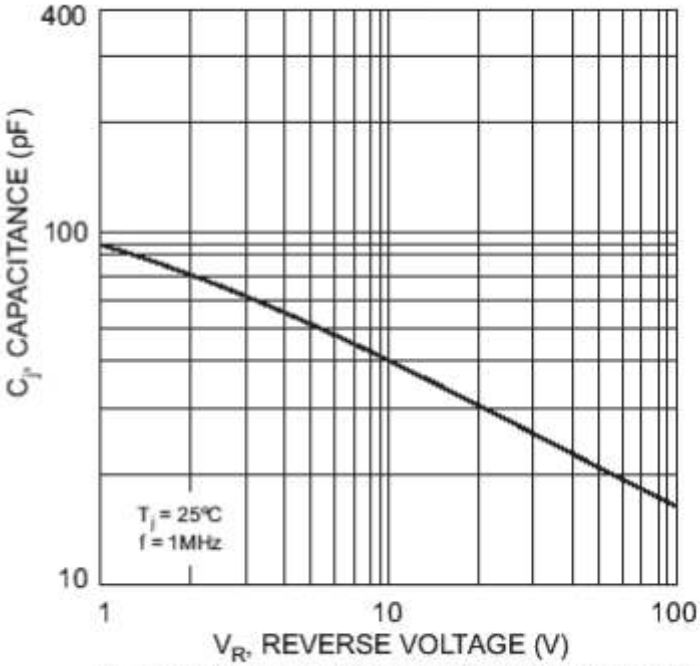


Fig. 4 Typical Junction Capacitance Per Element

Rating and Characteristic Curves (KBU600 - KBU610)

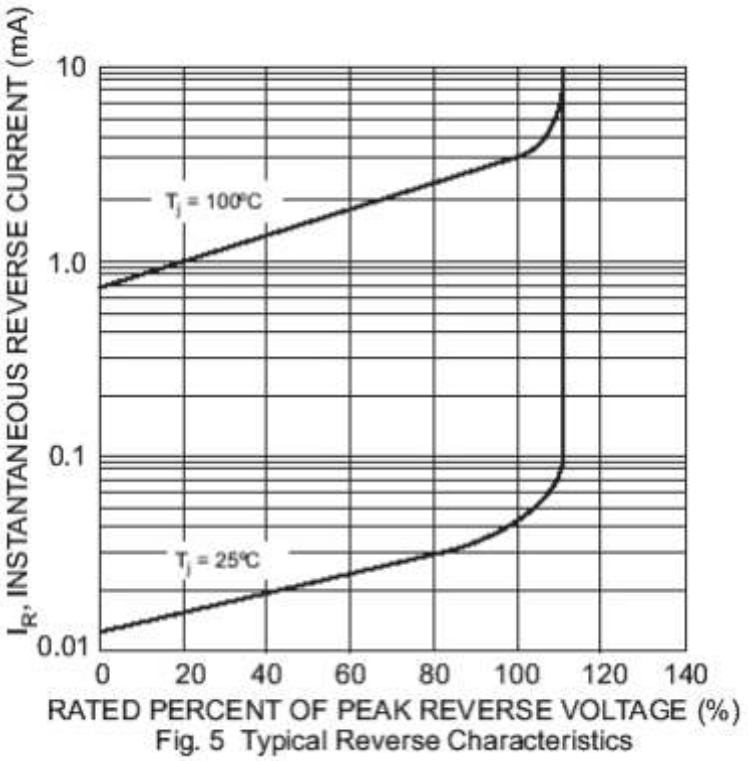


Fig. 5 Typical Reverse Characteristics