

## KBU600 Thru 610

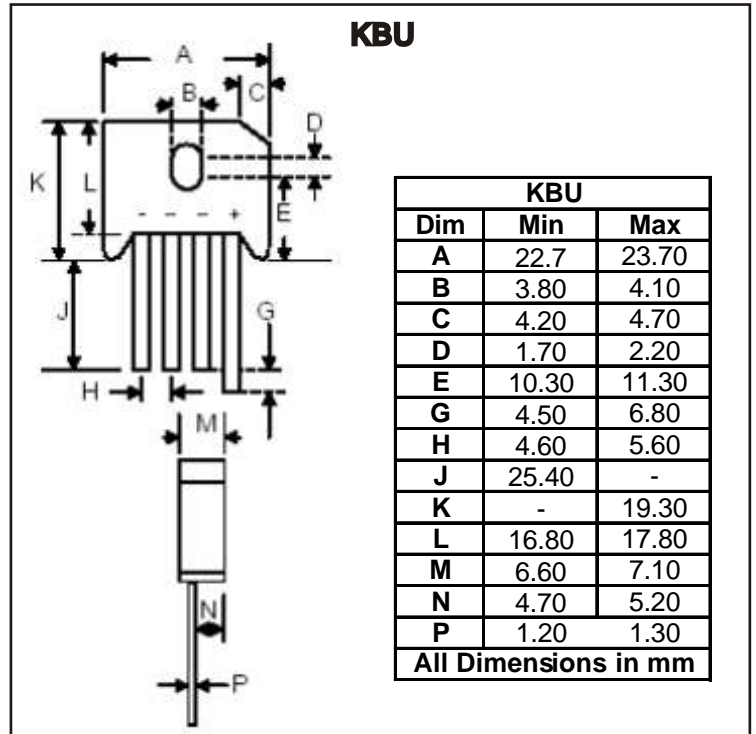
Reverse Voltage: 50 - 1000 Volts  
Forward Current: 6.0 Amp

### 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



## Maximum Ratings and Electrical Characteristics

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	$V_{RRM}$									
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	$V_R$									
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V	
Average Rectified Output Current @ $T_A = 100^\circ\text{C}$	$I_O$	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) @ $I_F = 3.0\text{A}$	$V_{FM}$	1.0								V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$	$I_R$	10								uA
At Rated DC Blocking Voltage @ $T_C = 100^\circ\text{C}$		1.0								mA
Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note1)	$I^2t$	166								$\text{A}^2\text{s}$
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	4.2								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 ambient mounted on PC board with  $13.0 \times 13.0 \times 0.03\text{mm}$  thick land areas.

## Rating and Characteristic Curves (KBU600 - KBU610)

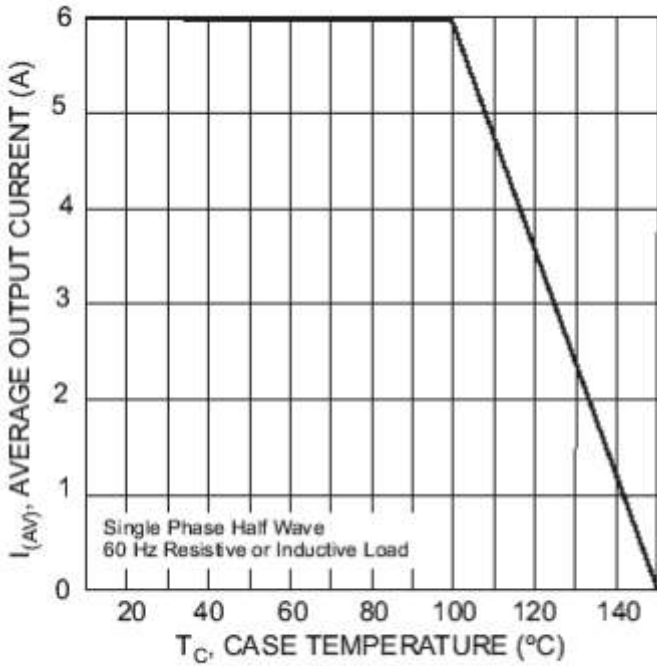


Fig. 1 Forward Current Derating Curve

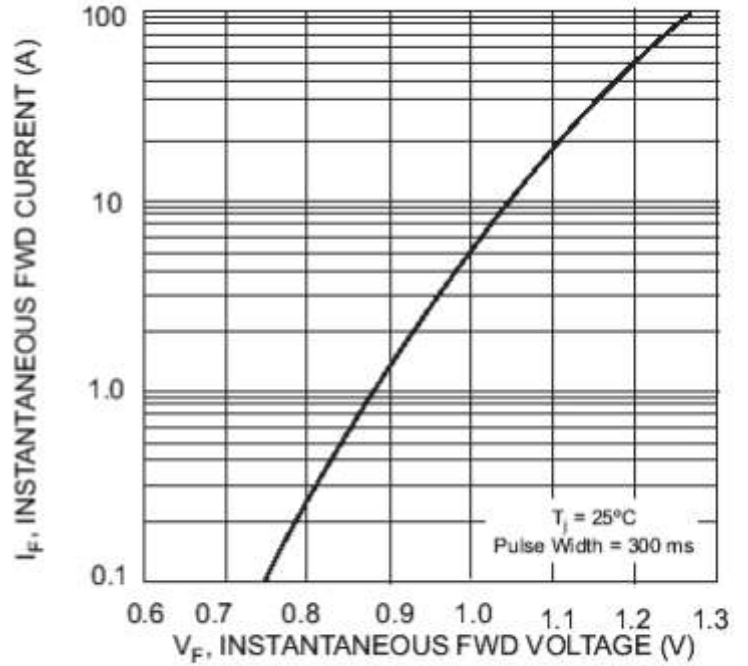


Fig. 2 Typical Forward Characteristics, per element

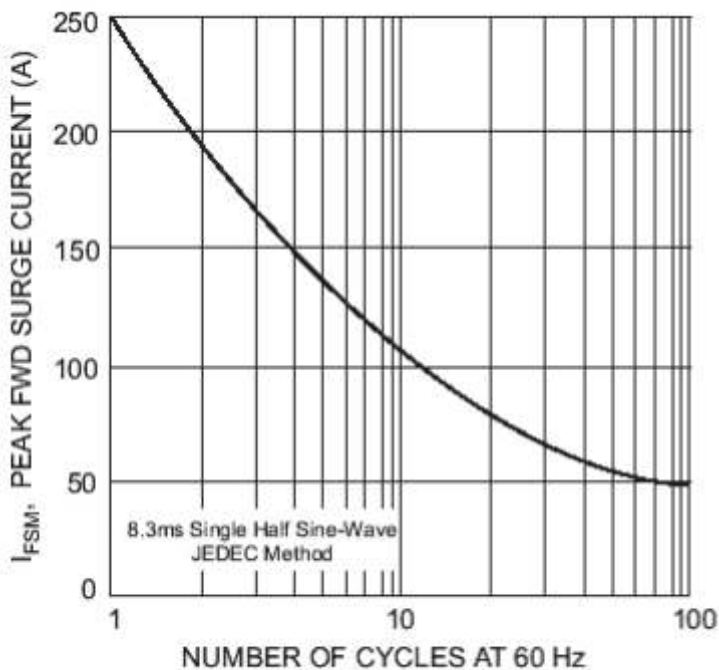


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

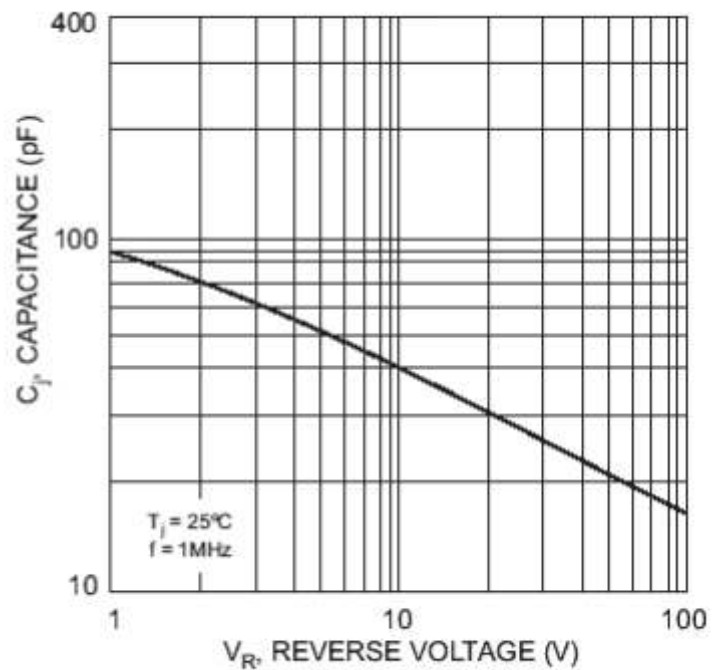


Fig. 4 Typical Junction Capacitance Per Element

## Rating and Characteristic Curves (KBU600 - KBU610)

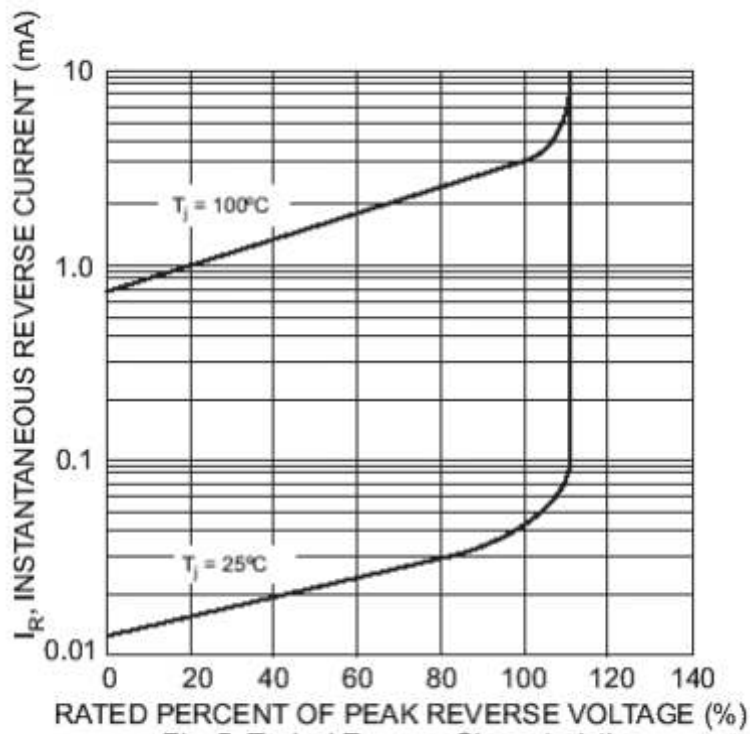


Fig. 5 Typical Reverse Characteristics