
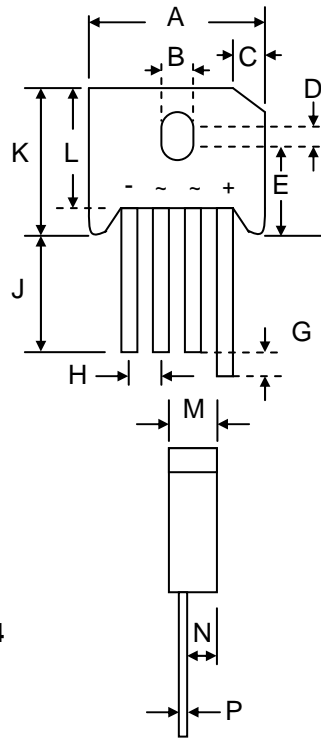


### Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
-  Recognized File # E157705

### Mechanical Data

- Case: KBU, 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
- Mounting Torque: 0.8 N.m Max.
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



KBU		
Dim	Min	Max
A	22.70	23.70
B	3.60	4.10
C	4.20	4.70
D	1.70	2.20
E	10.30	11.30
G	4.50	5.60
H	4.60	5.60
J	25.40	—
K	—	19.80
L	16.80	17.80
M	6.60	7.10
N	4.10	4.60
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 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 @ $T_C = 100^\circ\text{C}$ (Note 1)	$I_O$	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	175							A
Forward Voltage per leg @ $I_F = 3.0\text{A}$	$V_{FM}$	1.0							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_{RM}$	5.0 1.0							$\mu\text{A}$ mA
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	127							$\text{A}^2\text{s}$
Typical Junction Capacitance (Note 2)	$C_J$	211				94			pF
Thermal Resistance Junction to Ambient (Note 3) Thermal Resistance Junction to Case (Note 1)	$R_{JA}$ $R_{JC}$	18.6 3.1							$^\circ\text{C/W}$
RMS Isolation Voltage Terminals to Case, $t = 1\text{min}$	$V_{ISO}$	1500							V
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

- Note: 1. Mounted on 65 x 35 x 1.5mm thick Al. heatsink.  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 3. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.

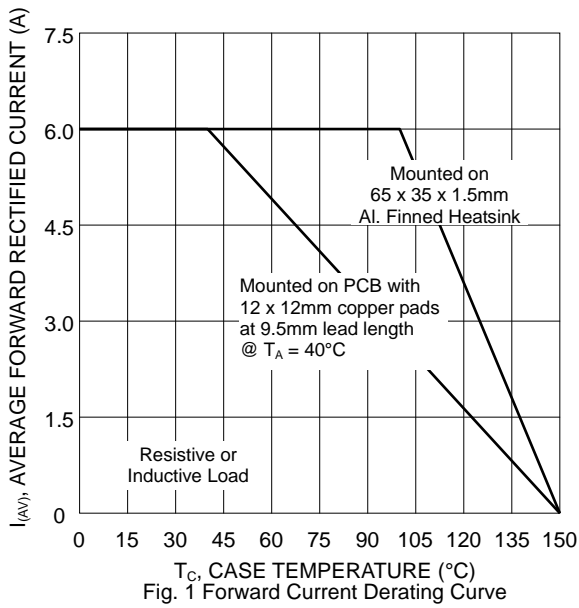


Fig. 1 Forward Current Derating Curve

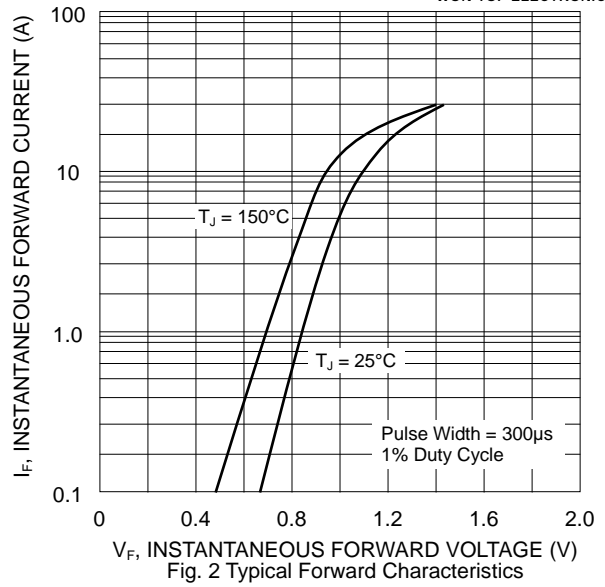


Fig. 2 Typical Forward Characteristics

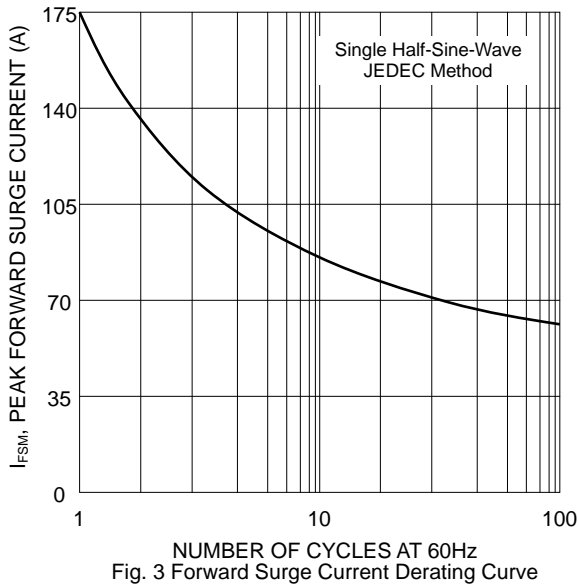


Fig. 3 Forward Surge Current Derating Curve

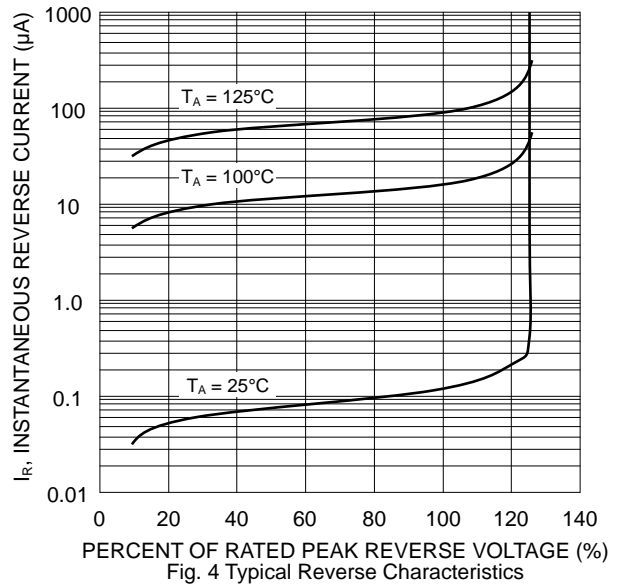


Fig. 4 Typical Reverse Characteristics

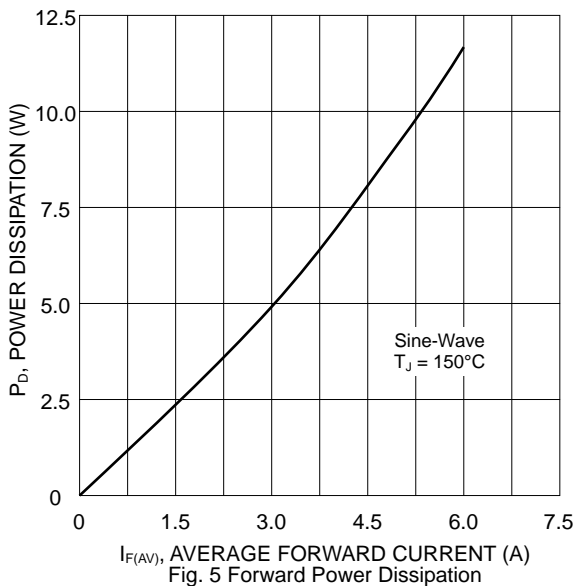


Fig. 5 Forward Power Dissipation

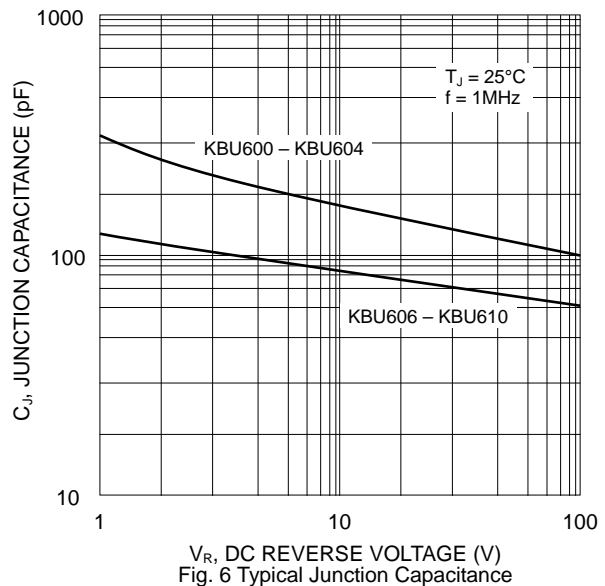
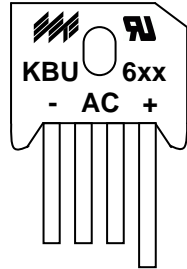


Fig. 6 Typical Junction Capacitance

## MARKING INFORMATION



KBU6xx = Device Number  
 xx = 00, 01, 02, 04, 06, 08 or 10  
 Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK

Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
268 x 227 x 51	400	463 x 283 x 185	2,400	20.5

**Note:** 1. Paper box, white or brown color.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBU600	SIL Bridge	400 Units/Box
KBU601	SIL Bridge	400 Units/Box
KBU602	SIL Bridge	400 Units/Box
KBU604	SIL Bridge	400 Units/Box
KBU606	SIL Bridge	400 Units/Box
KBU608	SIL Bridge	400 Units/Box
KBU610	SIL Bridge	400 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBU600-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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