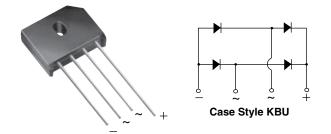
KBU4A, KBU4B, KBU4D, KBU4G, KBU4J, KBU4K, KBU4M

Vishay General Semiconductor

Single-Phase Bridge Rectifier



www.vishay.com

PRIMARY CHARACTERISTICS							
Package	KBU						
I _{F(AV)}	4 A						
V _{RRM}	50 V, 100, V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I _{FSM}	200 A						
I _R	5 μΑ						
V _F at I _F = 4 A	1.0 V						
T _J max.	150 °C						
Diode variations	In-Line						

FEATURES

- UL recognition, file number E54214
- Ideal for printed circuit boards
- High surge current capability
- High case dielectric strength of 1500 V_{RMS}
- Solder dip 275 °C max. 10 s, per JESD 22-B106
 CompLiant
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, SMPS, adapter, audio equipment, and home appliances applications.

MECHANICAL DATA

Case: KBU

Molding compound meets UL 94 V-0 flammability rating Base P/N-E4 - RoHS-compliant, commercial grade

Terminals: Silver plated leads, solderable per J-STD-002 and JESD22-B102

Polarity: As marked on body

Mounting Torque: 10 cm-kg (8.8 inches-lbs) max.

Recommended Torque: 5.7 cm-kg (5 inches-lbs)

MAXIMUM RATINGS ($T_A = 25 \text{ °C}$ unless otherwise noted)										
PARAMETER		SYMBOL	KBU4A	KBU4B	KBU4D	KBU4G	KBU4J	KBU4K	KBU4M	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage		V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage		V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward $T_{\rm C} = 100 ^{\circ}{\rm C}$			4.0							A
rectified output current at	$T_A = 30 \ ^{\circ}C \ ^{(2)}$	I _{F(AV)}	4.0							~
Peak forward surge current single sine-wave superimposed on rated load		I _{FSM}	200							А
Operating junction and storage temperature range		T _J , T _{STG}	- 50 to + 150							°C

Notes

⁽¹⁾ Units mounted on a 2.0" x 1.6" x 0.3" thick (5 cm x 4 cm x 0.8 cm) aluminum plate

 $^{(2)}$ Units mounted on PCB with 0.5" x 0.5" (12 mm x 12 mm) copper pads and 0.375" (9.5 mm) lead length

ELECTRICAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	KBU4A	KBU4B	KBU4D	KBU4G	KBU4J	KBU4K	KBU4M	UNIT
Maximum instantaneous forward drop per diode	I _F = 4.0 A	V _F	1.0						V	
Maximum DC reverse $T_A = 25 \text{ °C}$			5.0							μA
current at rated DC blocking voltage per diode	T _A = 125 °C	IR	1.0							mA

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THERMAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)									
PARAMETER	SYMBOL	OL KBU4A KBU4B KBU4D KBU4G KBU4J KBU4K KBU4M UNIT							
Typical thermal resistance	$R_{\theta JA}$	19 ⁽²⁾							
i ypical mermai fesistarice	$R_{\theta JL}$	4.0 (1)						°C/W	

Notes

⁽¹⁾ Units mounted on a 2.0" x 1.6" x 0.3" thick (5 cm x 4 cm x 0.8 cm) aluminum plate

⁽²⁾ Units mounted on PCB with 0.5" x 0.5" (12 mm x 12 mm) copper pads and 0.375" (9.5 mm) lead length

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g) PREFERRED PACKAGE CODE BASE QUANTITY DELIVERY MODE							
KBU4J-E4/51	8.0	51	250	Anti-static PVC tray				

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

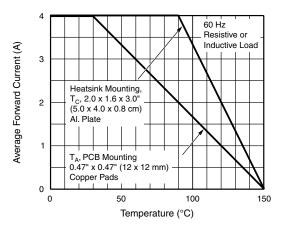
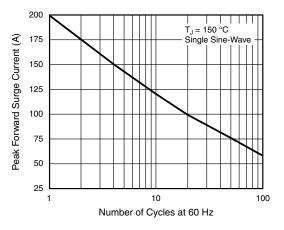
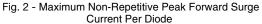


Fig. 1 - Derating Curve Output Rectified Current





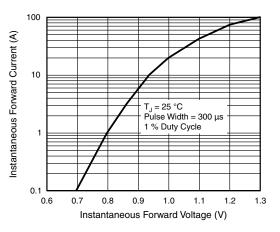


Fig. 3 - Typical Forward Characteristics Per Diode

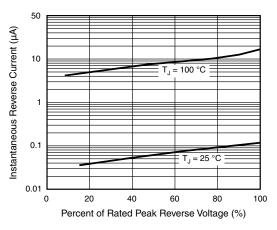
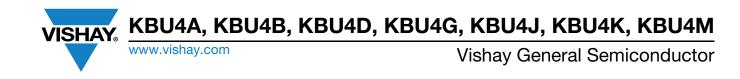


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

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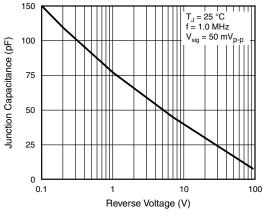
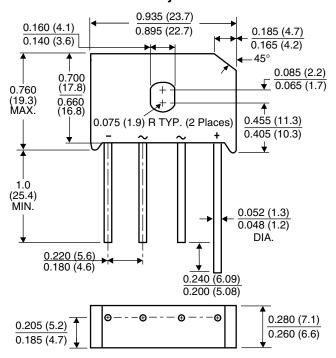


Fig. 5 - Typical Junction Capacitance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Case Style KBU



Vishay

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