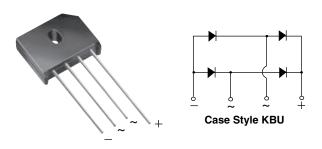


KBU4A, KBU4B, KBU4D, KBU4G, KBU4J, KBU4K, KBU4M

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Vishay General Semiconductor

Single-Phase Bridge Rectifier



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





- Ideal for printed circuit boards
- · High surge current capability
- High case dielectric strength of 1500 V_{RMS}
- Colder die 075 % man 10 a mar 1500 00 D

Solder dip 275 °C max. 10 s, per JESD 22-B106 COMPLIANT
Material categorization: for definitions of compliance

 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 °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 rectified output current at $T_C = 100 ^{\circ}\text{C}^{-(2)}$			4.0							A
		I _{F(AV)}	4.0							
Peak forward surge current single sine-wave superimposed on rated load		I _{FSM}	200							Α
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 °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				٧			
Maximum DC reverse current at rated DC blocking	T _A = 25 °C	1_	5.0					μΑ		
voltage per diode	T _A = 125 °C	IR	1.0						mA	



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THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	MBOL KBU4A KBU4B KBU4D KBU4G KBU4J KBU4K KBU4M UNIT							
Typical thermal resistance	19 ⁽²⁾						°C/W		
Typical thermal resistance	$R_{\theta JL}$	•			4.0 (1)				C/VV

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	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)

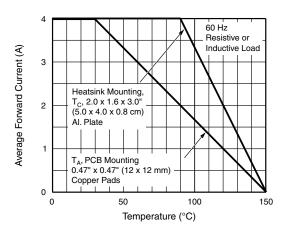


Fig. 1 - Derating Curve Output Rectified Current

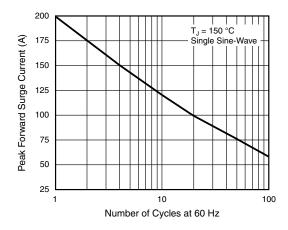


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

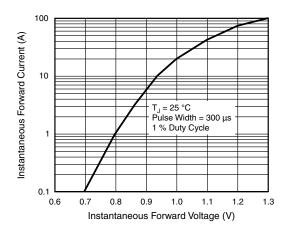


Fig. 3 - Typical Forward Characteristics Per Diode

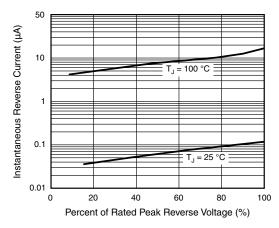


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

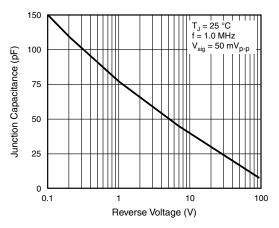
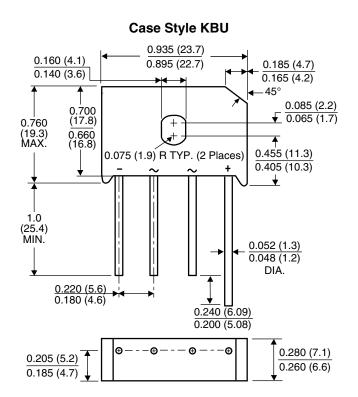


Fig. 5 - Typical Junction Capacitance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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