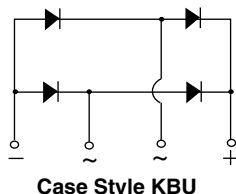
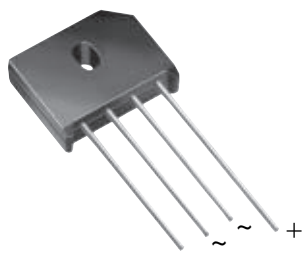




Single-Phase Bridge Rectifier



FEATURES

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


RoHS
COMPLIANT

LINKS TO ADDITIONAL RESOURCES



PRIMARY CHARACTERISTICS

Package	KBU
I _{F(AV)}	8 A
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V
I _{FSM}	300 A
I _R	10 µA
V _F at I _F = 8 A	1.0 V
T _J max.	150 °C
Circuit configuration	In-line

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	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	KBU8M	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 °C (1)(3) T _A = 40 °C (2)	I _{F(AV)}	8.0						A
			6.0						
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	300							A
Operating junction and storage temperature range	T _J , T _{STG}	-50 to +150							°C

Notes

- (1) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
- (2) Units mounted in free air, no heatsink, PCB at 0.375" (9.5 mm) lead length with 0.5" x 0.5" (12 mm x 12 mm) copper pads
- (3) Units mounted on a 3.0" x 3.0" x 0.11" thick (7.5 cm x 7.5 cm x 0.3 cm) aluminum plate heatsink

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	KBU8M	UNIT
Maximum instantaneous forward drop per diode	I _F = 8.0 A	V _F	1.0						V	
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25 °C	I _R	10						µA	
	T _A = 125 °C		1.0						mA	



THERMAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	KBU8M	UNIT
Typical thermal resistance	R _{θJA} ⁽¹⁾	18							°C/W
	R _{θJC} ⁽²⁾	3.0							

Notes

(1) Units mounted in free air, no heatsink, PCB at 0.375" (9.5 mm) lead length with 0.5" x 0.5" (12 mm x 12 mm) copper pads

(2) Units mounted on a 3.0" x 3.0" x 0.11" thick (7.5 cm x 7.5 cm x 0.3 cm) aluminum plate heatsink

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
KBU8J-E4/51	8.0	51	250	Anti-static PVC tray

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

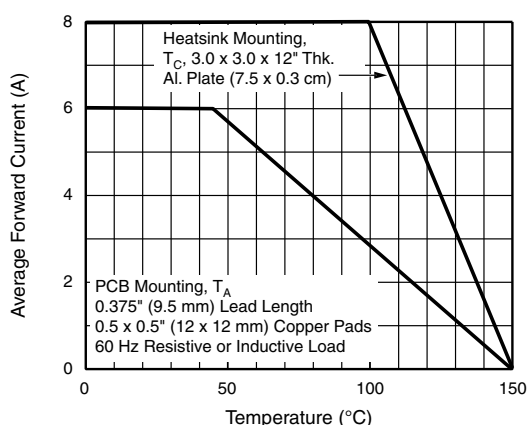


Fig. 1 - Derating Curve Output Rectified Current

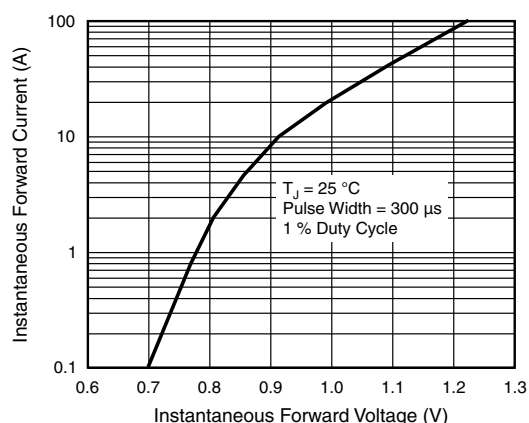


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

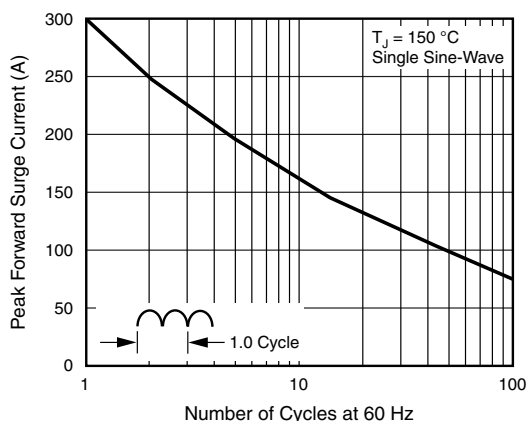


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

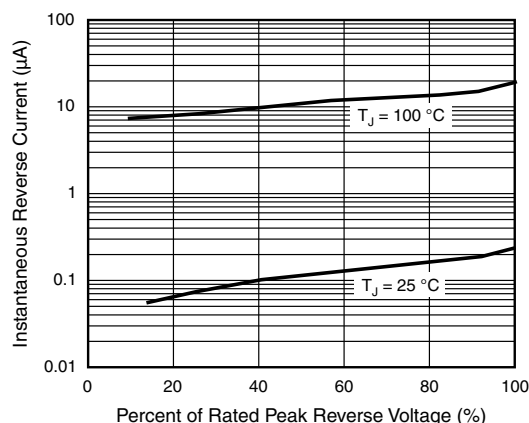
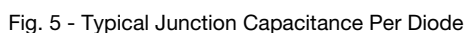


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode



Technical drawing of a mechanical part, likely a bracket or base plate, showing top and side views with dimensions in inches and millimeters.

Top View Dimensions:

- Overall width: 0.935 (23.7)
- Distance from left edge to center of hole: 0.895 (22.7)
- Distance from right edge to center of hole: 0.185 (4.7)
- Distance from left edge to center of hole (alternative): 0.160 (4.1)
- Distance from left edge to center of hole (alternative): 0.140 (3.6)
- Distance from center of hole to right edge (alternative): 0.165 (4.2)
- Distance from center of hole to right edge (alternative): 0.085 (2.2)
- Distance from center of hole to right edge (alternative): 0.065 (1.7)
- Radius of hole: 0.075 (1.9) R TYP. (2 Places)
- Distance from left edge to center of hole (alternative): 0.700 (17.8)
- Distance from left edge to center of hole (alternative): 0.660 (16.8)
- Distance from left edge to center of hole (alternative): 0.760 (19.3) MAX.
- Distance from left edge to center of hole (alternative): 1.0 (25.4) MIN.
- Distance from left edge to center of hole (alternative): 0.220 (5.6)
- Distance from left edge to center of hole (alternative): 0.180 (4.6)
- Distance from center of hole to right edge (alternative): 0.240 (6.09)
- Distance from center of hole to right edge (alternative): 0.200 (5.08)
- Distance from center of hole to right edge (alternative): 0.052 (1.3)
- Distance from center of hole to right edge (alternative): 0.048 (1.2) DIA.
- Distance from center of hole to right edge (alternative): 0.455 (11.3)
- Distance from center of hole to right edge (alternative): 0.405 (10.3)
- Distance from center of hole to right edge (alternative): 45°

Side View Dimensions:

- Overall height: 0.280 (7.1)
- Distance from top edge to center of hole: 0.205 (5.2)
- Distance from top edge to center of hole: 0.185 (4.7)
- Distance from bottom edge to center of hole: 0.260 (6.6)



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