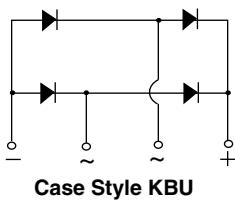
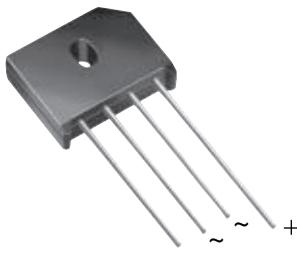


Single-Phase Bridge Rectifier



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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

PRIMARY CHARACTERISTICS	
Package	KBU
I _{F(AV)}	6 A
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V
I _{FSM}	200 A
I _R	5 µA
V _F at I _F = 6 A	1.0 V
T _J max.	150 °C
Diode variations	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	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M	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 $T_C = 100^\circ\text{C}$ (1) ⁽²⁾ $T_A = 40^\circ\text{C}$ (3)	I _{F(AV)}	6.0						A	
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	250							A
Operating junction and storage temperature range	T _J , T _{STG}	- 50 to + 150						°C	

Notes

- (1) Recommended mounted position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
- (2) Thermal resistance from junction to ambient with units in free air, PCB mounted on 0.5" x 0.5" (12 mm x 12 mm) copper pads, 0.375" (9.5 mm) lead length
- (3) Thermal resistance from junction to case with units mounted on a 2.6" x 1.4" x 0.06" thick (6.5 cm x 3.5 cm x 0.15 cm) aluminum plate

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M	UNIT
Maximum instantaneous forward drop per diode	I _F = 6.0 A	V _F	1.0						V	
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25 °C	I _R	5.0						µA	
	T _A = 125 °C		1.0						mA	

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

PARAMETER	SYMBOL	KBU6A	KBU6B	KBU6D	KBU6G	KBU6J	KBU6K	KBU6M	UNIT
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$				8.6				$^\circ\text{C}/\text{W}$
	$R_{\theta JC}$				3.1				

Note

⁽¹⁾ Thermal resistance from junction to ambient with units in free air, PCB mounted on 0.5" x 0.5" (12 mm x 12 mm) copper pads, 0.375" (9.5 mm) lead length

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
KBU6J-E4/51	8.0	51	250	Anti-static PVC tray

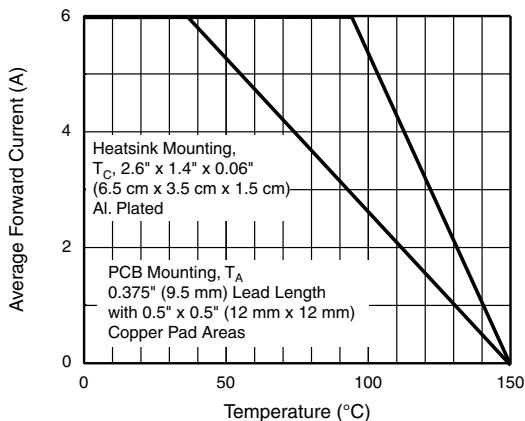
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25^\circ\text{C}$ unless otherwise noted)


Fig. 1 - Derating Curve Output Rectified Current

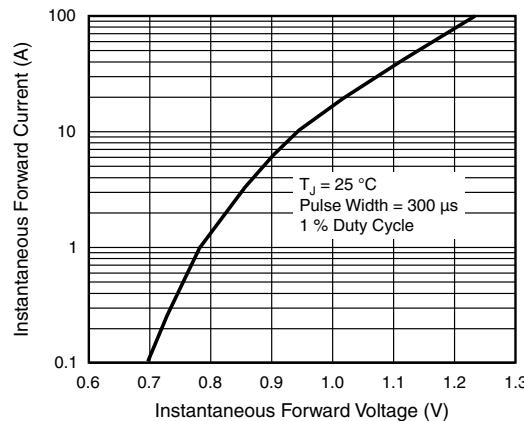


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

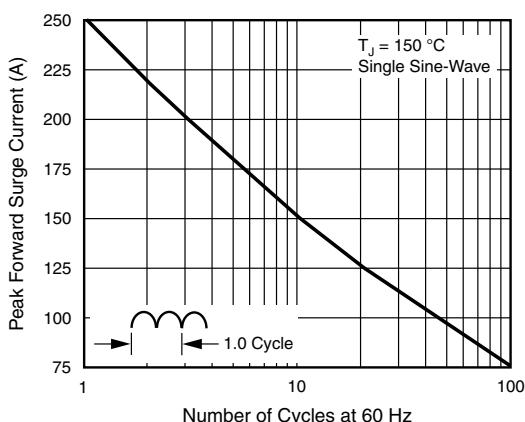


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

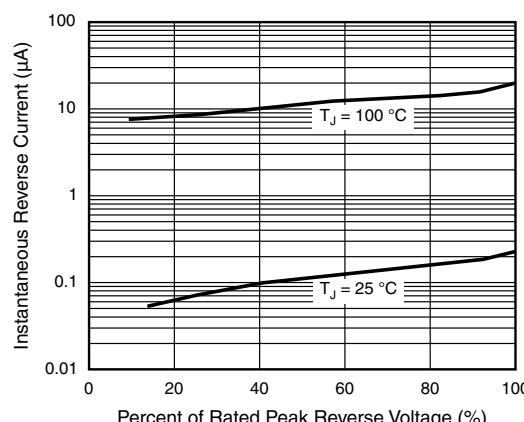


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

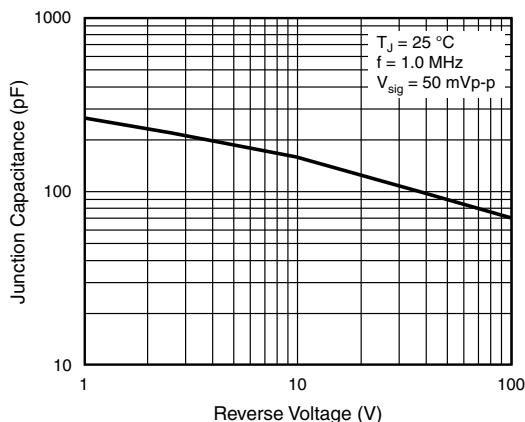
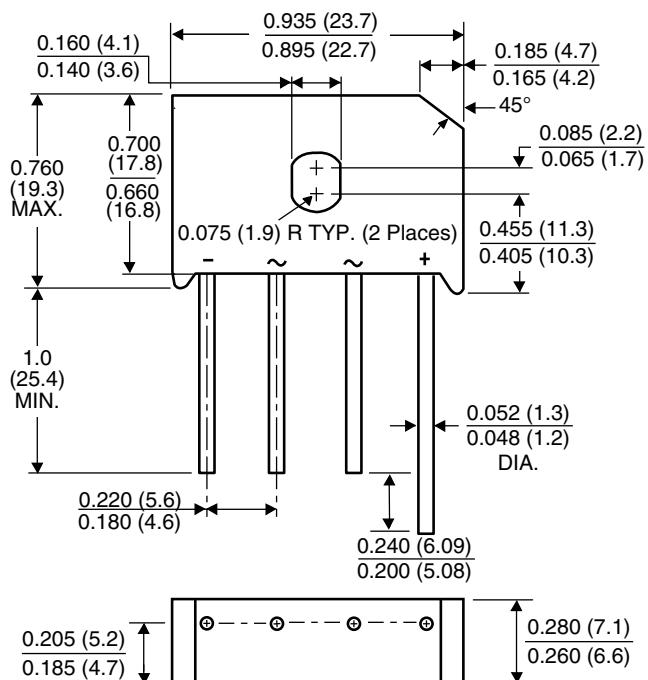


Fig. 5 - Typical Junction Capacitance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

Case Style KBU



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