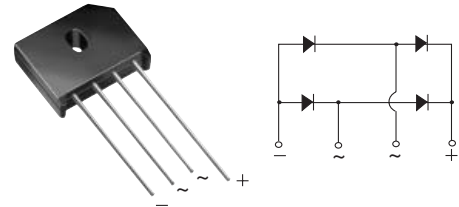


Single-Phase Bridge Rectifier

Major Ratings and Characteristics

$I_{F(AV)}$	8 A
V_{RRM}	50 V to 1000 V
I_{FSM}	300 A
I_R	10 μ A
V_F	1.0 V
T_j max.	150 °C

Case Style KBU



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 260 °C, 40 seconds



Mechanical Data

Case: KBU

Epoxy meets UL-94V-0 Flammability rating

Terminals: Silver plated (E4 Suffix) leads, solderable per J-STD-002B and JESD22-B102D

Polarity: As marked on body

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

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

Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Monitor, TV, Printer, SMPS, Adapter, Audio equipment, and Home Appliances applications

Maximum Ratings

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	KBU8M	Units
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 6.0							A
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

Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Test condition	Symbols	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	KBU8M	Units
Maximum instantaneous forward drop per leg	at 8.0 A	V_F	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg	$T_A = 25$ °C $T_A = 125$ °C	I_R	10 1.0							μ A mA

Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	KBU8A	KBU8B	KBU8D	KBU8G	KBU8J	KBU8K	KBU8M	Units
Typical thermal resistance per leg	$R_{\theta JA}$	18 ⁽²⁾							°C/W
	$R_{\theta JC}$	3.0 ⁽³⁾							

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, P.C.B. at 0.375" (9.5 mm) lead length with 0.5 x 0.5" (12 x 12 mm) copper pads
- (3) Units mounted on a 3.0 x 3.0" x 0.11" thick (7.5 x 7.5 x 0.3 cm) Al. Plate heatsink

Ratings and Characteristics Curves

($T_A = 25\text{ °C}$ unless otherwise noted)

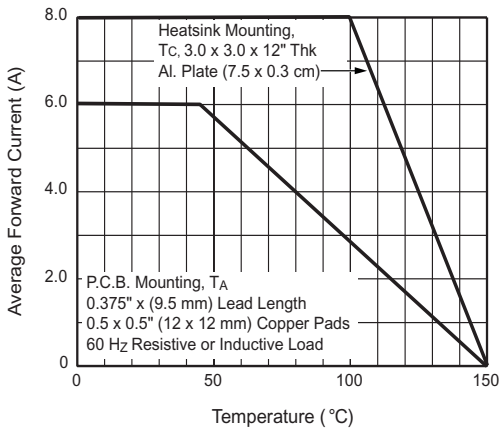


Figure 1. Derating Curve Output Rectified Current

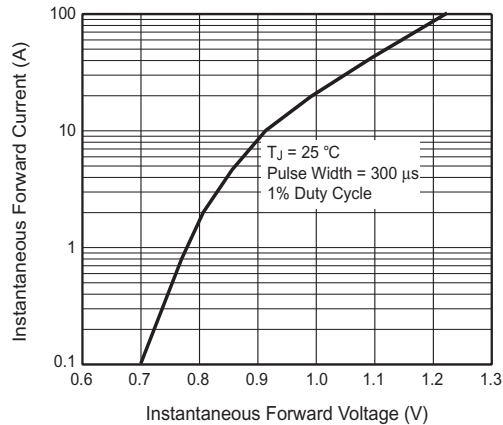


Figure 3. Typical Instantaneous Forward Characteristics Per Leg

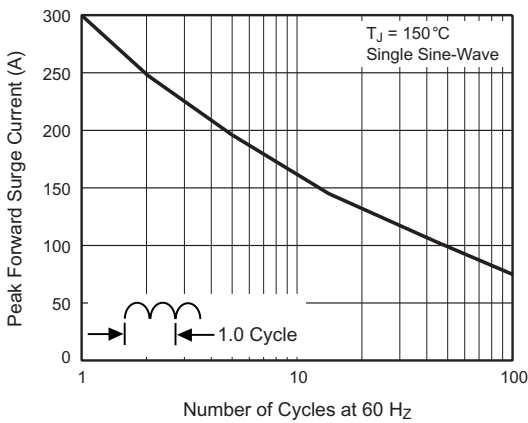


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

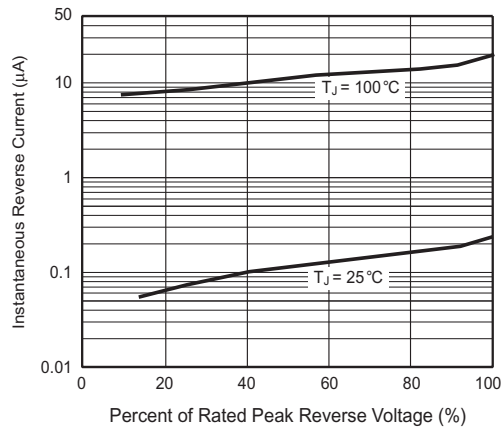


Figure 4. Typical Reverse Leakage Characteristics Per Leg

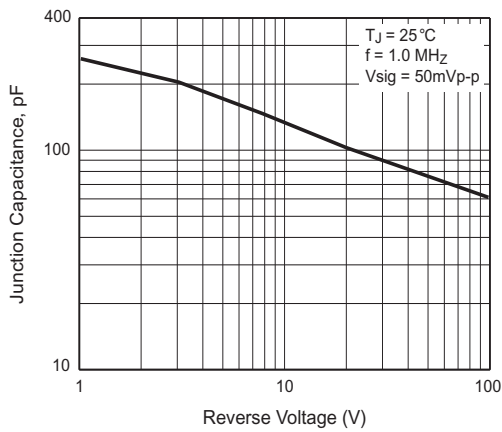
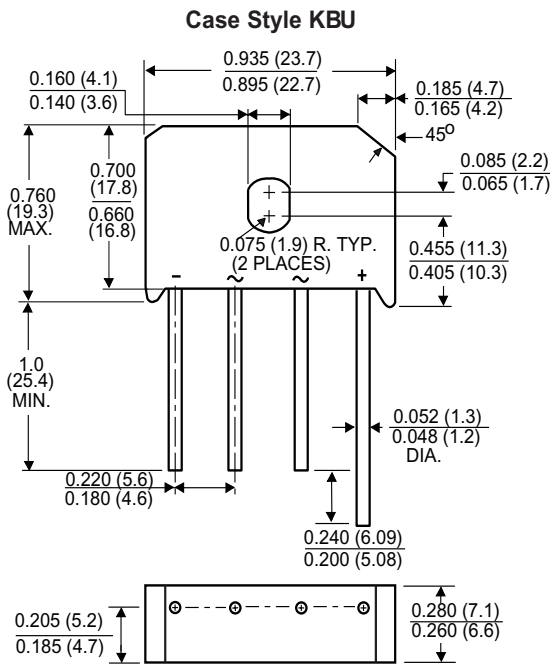


Figure 5. Typical Junction Capacitance Per Leg

Package outline dimensions in inches (millimeters)





Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.