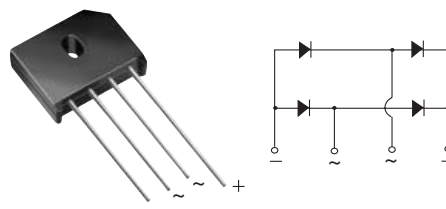


Single-Phase Bridge Rectifier

Major Ratings and Characteristics

$I_{F(AV)}$	4 A
V_{RRM}	50 V to 1000 V
I_{FSM}	200 A
I_R	5 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	KBU4A	KBU4B	KBU4D	KBU4G	KBU4J	KBU4K	KBU4M	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 $T_C = 100\text{ °C}^{(1)}$ $T_A = 30\text{ °C}^{(2)}$	$I_{F(AV)}$	4.0 4.0							A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	200							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	KBU4A	KBU4B	KBU4D	KBU4G	KBU4J	KBU4K	KBU4M	Units
Maximum instantaneous forward drop per leg	at 4.0 A	V_F	1.0							V
Maximum DC reverse current at rated DC blocking voltage per leg	$T_A = 25\text{ °C}$ $T_A = 125\text{ °C}$	I_R	5.0 1.0							μ A mA

Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	KBU4A	KBU4B	KBU4D	KBU4G	KBU4J	KBU4K	KBU4M	Units
Typical thermal resistance per leg	R _{θJA}	19 ⁽²⁾							°C/W
	R _{θJL}	4.0 ⁽¹⁾							

Notes:

(1) Units mounted on a 2.0 x 1.6 x 0.3" thick (5 x 4 x 0.8 cm.) Al. Plate

(2) Units mounted on P.C.B. with 0.5 x 0.5" (12 x 12 mm) copper pads and 0.375" (9.5 mm) lead length

(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Ratings and Characteristics Curves

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

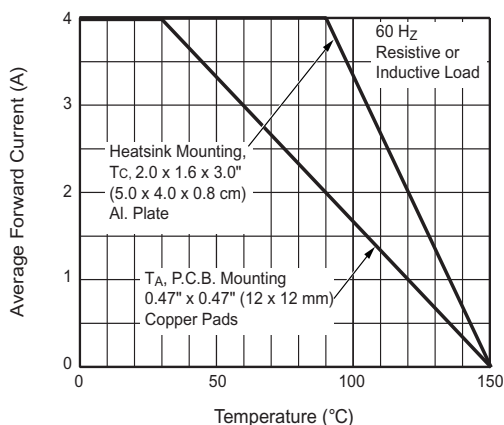


Figure 1. Derating Curve Output Rectified Current

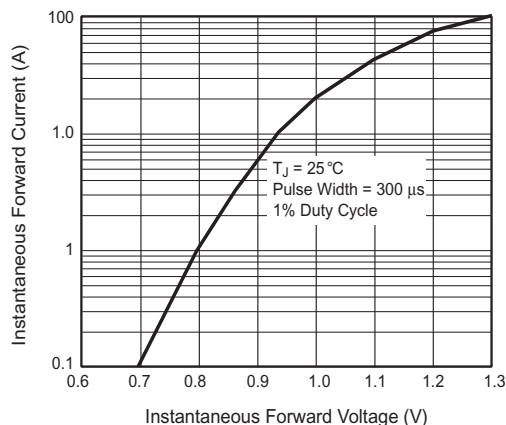


Figure 3. Typical Forward Characteristics Per Leg

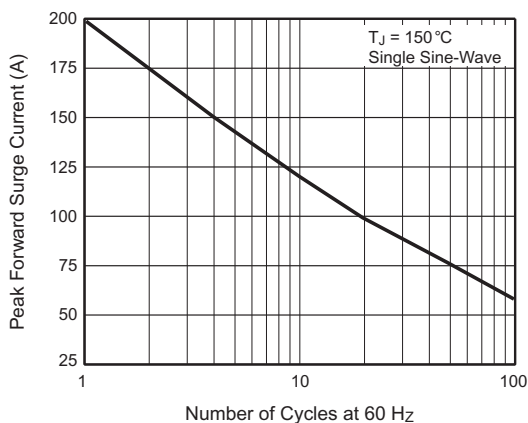


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

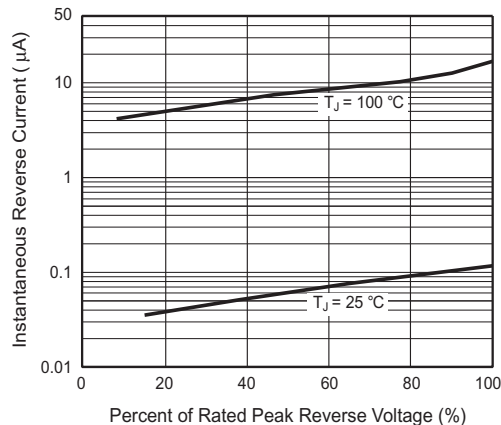


Figure 4. Typical Reverse Leakage Characteristics Per Leg

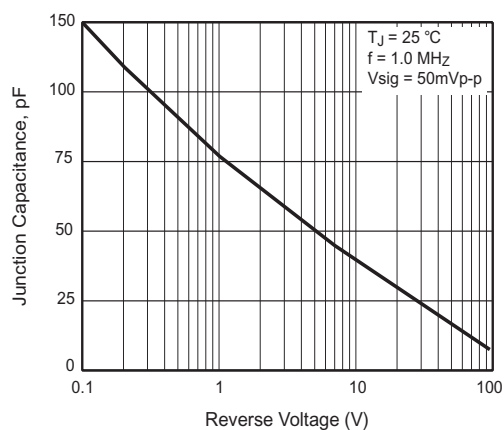
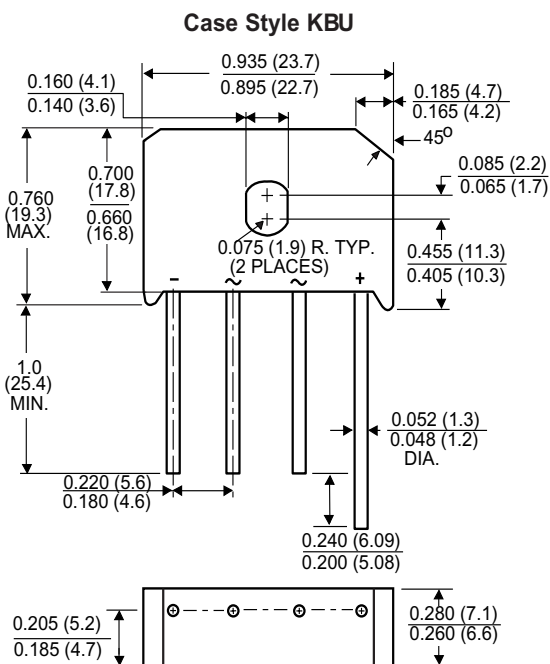


Figure 5. Typical Junction Capacitance Per Leg

Package outline dimensions in inches (millimeters)





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