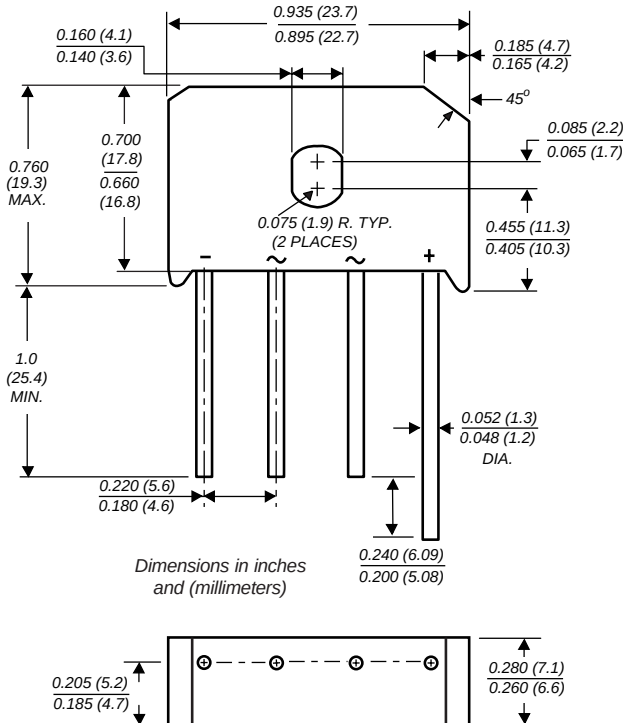




Single-Phase Bridge Rectifier

Reverse Voltage 50 and 1000 V
Forward Current 4.0 A

Case Style KBU



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214
- High case dielectric strength of 1500 VRMS
- Ideal for printed circuit boards
- Surge overload rating of 200A peak
- Typical I_R less than 0.1 μ A
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Mounting Position: Any (NOTE 3)

Weight: 0.3 oz., 8.0 g

Packaging codes/options:
1/250 EA. per Bulk Tray StackMaximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	KBU 4A	KBU 4B	KBU 4D	KBU 4G	KBU 4J	KBU 4K	KBU 4M	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 $T_C=100^\circ\text{C}$ ⁽¹⁾ $T_A=30^\circ\text{C}$ ⁽²⁾	$I_{F(AV)}$	4.0 4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Typical thermal resistance per leg ⁽²⁾ ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	19 4.0							°C/W
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.

Maximum instantaneous forward drop per leg at 4.0 A	V_F	1.0	V
Maximum DC reverse current at rated $T_A=25^\circ\text{C}$ DC blocking voltage per leg $T_A=125^\circ\text{C}$	I_R	5.0 1.0	μ A mA

Notes:

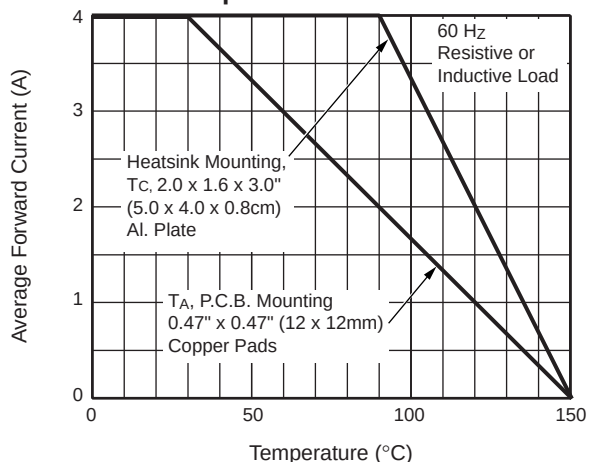
(1) Units mounted on a 2.0 x 1.6 x 0.3" thick (5 x 4 x 0.8cm.) Al. Plate

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

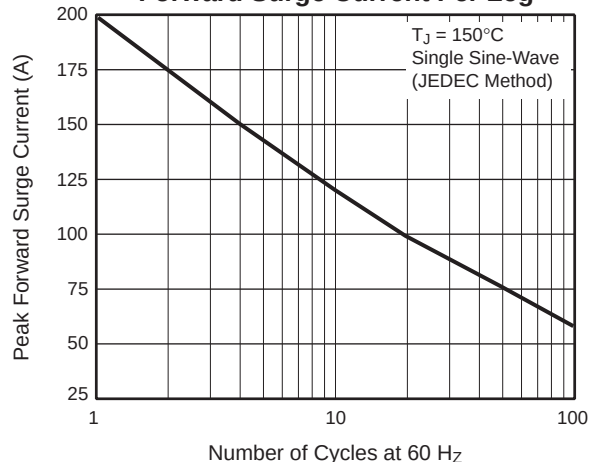
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

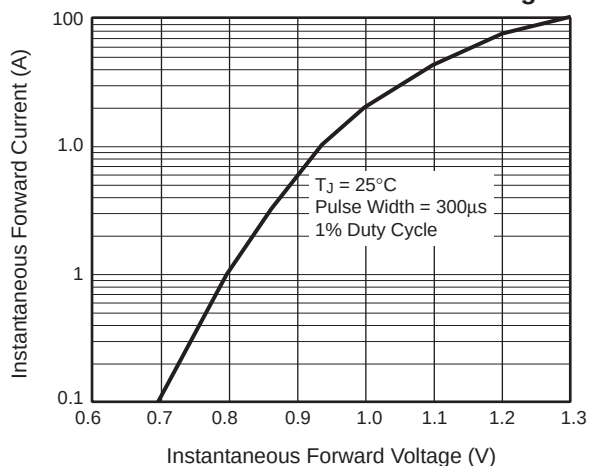
**Fig. 1 – Derating Curve
Output Rectified Current**



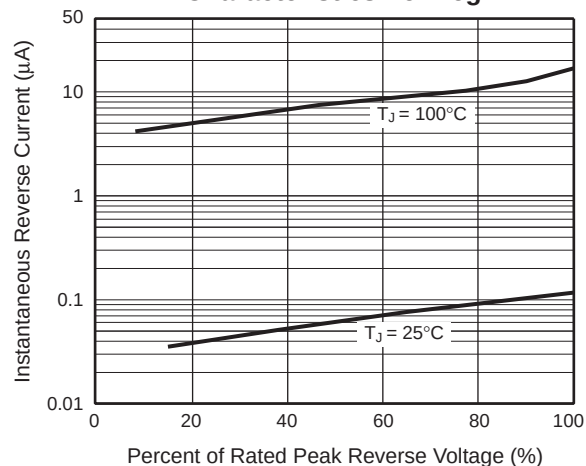
**Fig. 2 – Maximum Non-Repetitive Peak
Forward Surge Current Per Leg**



**Fig. 3 – Typical Instantaneous
Forward Characteristics Per Leg**



**Fig. 4 – Typical Reverse Leakage
Characteristics Per Leg**



**Fig. 5 – Typical Junction
Capacitance Per Leg**

