

Bridge Rectifier

KBU4D

200V / 4A

DATASHEET

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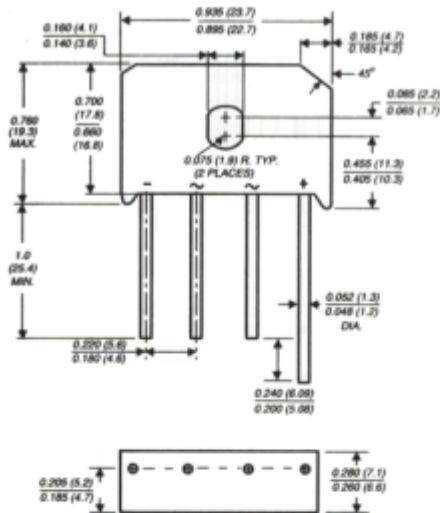
Source: General Semiconductor Databook 1998

KBU4A THRU KBU4M

SINGLE-PHASE BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

Case Style KBU



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ This series is UL listed under Recognized under Component Index, file number E54214
- ◆ High case dielectric strength of 1500 VRMS
- ◆ Ideal for printed circuit boards
- ◆ Surge overload rating of 200 Amperes peak
- ◆ Typical IR less than 0.1μA
- ◆ 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 lead solderable per MIL-STD-750, Method 2026

Mounting Position: Any (NOTE 3)

Mounting Torque: 5 in. - lb. max.

Weight: 0.3 ounce, 8.0 grams

MAXIMUM RATINGS AND ELECTRICAL 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 | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified output current at TC=100°C (NOTE 1) TA=30°C (NOTE 2) | IAV | | | | | 4.0 | | | Amps |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | | | | | 200.0 | | | Amps |
| Maximum instantaneous forward voltage drop per leg at 4.0A | VF | | | | | 1.0 | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage per leg TA=25°C TA=125°C | IR | | | | | 5.0 | | | μA |
| | | | | | | 1.0 | | | mA |
| Typical thermal resistance per leg (NOTE 2) (NOTE 1) | REJA REJL | | | | | 19.0 | | | °C/W |
| | | | | | | 4.0 | | | °C/W |
| Operating junction and storage temperature range | TJ, TSTG | | | | | -50 to +150 | | | °C |

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 CHARACTERISTICS CURVES KBU4A THRU KBU4M

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

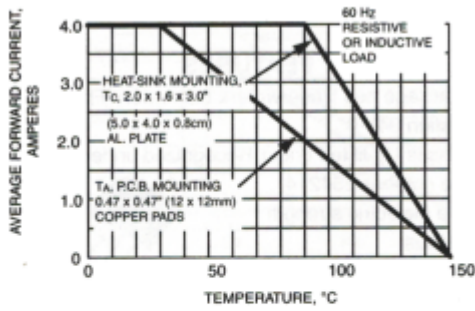


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

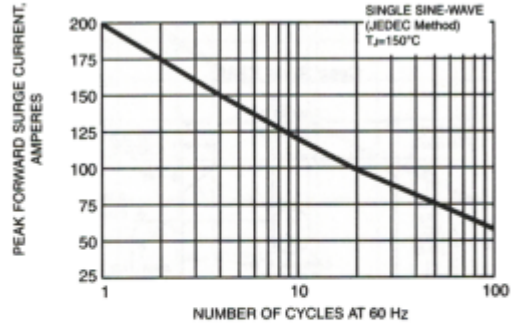


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

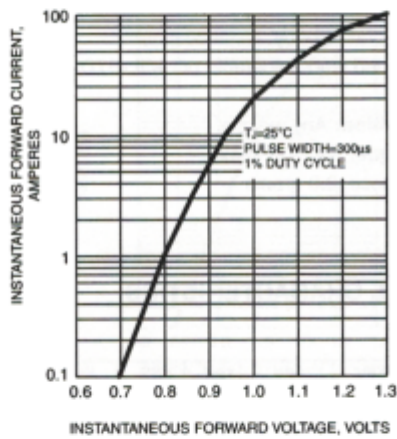


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

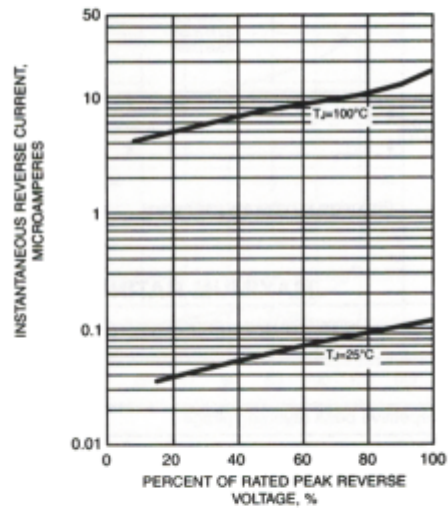


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

