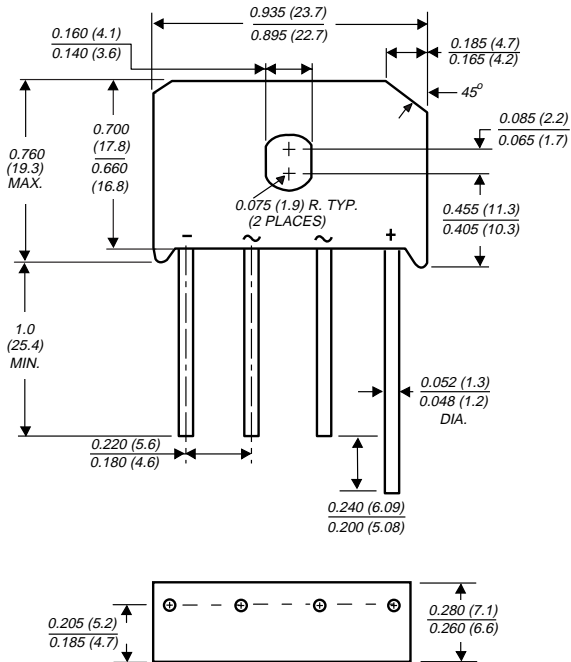


KBU4A THRU KBU4M

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 I_R less than $0.1\mu A$
- ◆ 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 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 | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified output current at $T_C=100^\circ C$ (NOTE 1) $T_A=30^\circ C$ (NOTE 2) | $I_{(AV)}$ | 4.0 | | | | | | Amps | |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 200.0 | | | | | | Amps | |
| Maximum instantaneous forward voltage drop per leg at 4.0A | V_F | 1.0 | | | | | | Volts | |
| Maximum DC reverse current at rated DC blocking voltage per leg $T_A=25^\circ C$ $T_A=125^\circ C$ | I_R | 5.0 1.0 | | | | | | μA mA | |
| Typical thermal resistance per leg (NOTE 2) (NOTE 1) | $R_{\theta JA}$ $R_{\theta JL}$ | 19.0 4.0 | | | | | | $^\circ C/W$ | |
| Operating junction and storage temperature range | T_J, T_{STG} | -50 to +150 | | | | | | $^\circ C$ | |

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

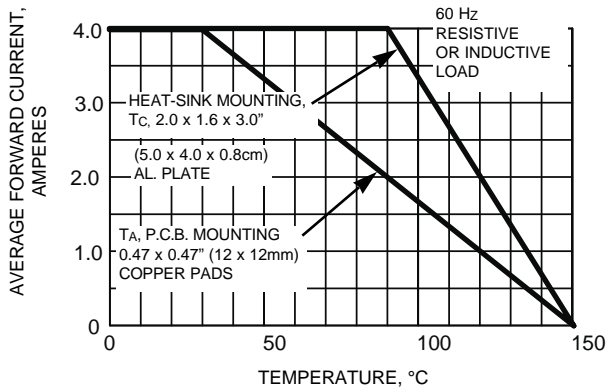


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

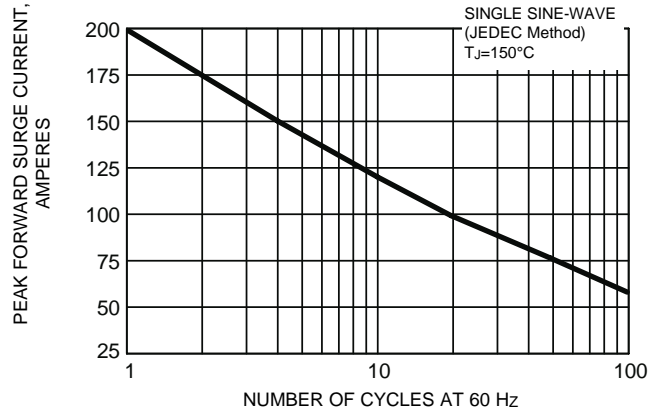


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

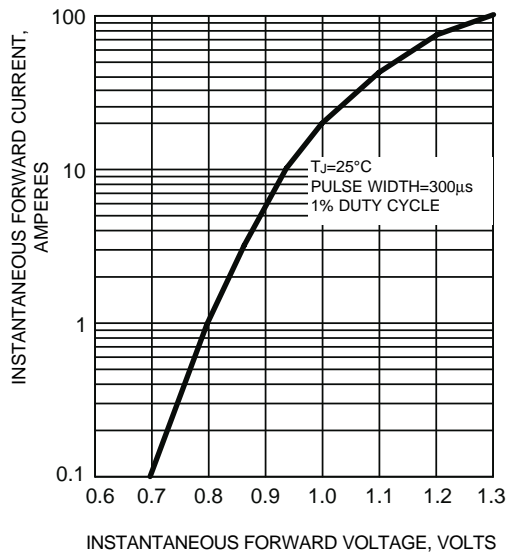


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

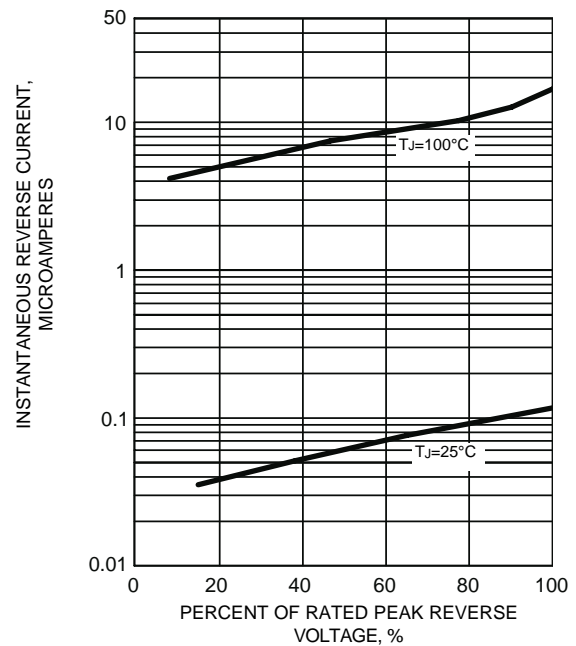


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

