



SINGLE-PHASE BRIDGE RECTIFIER

KBU8A THRU KBU8M

**VOLTAGE RANGE
CURRENT**

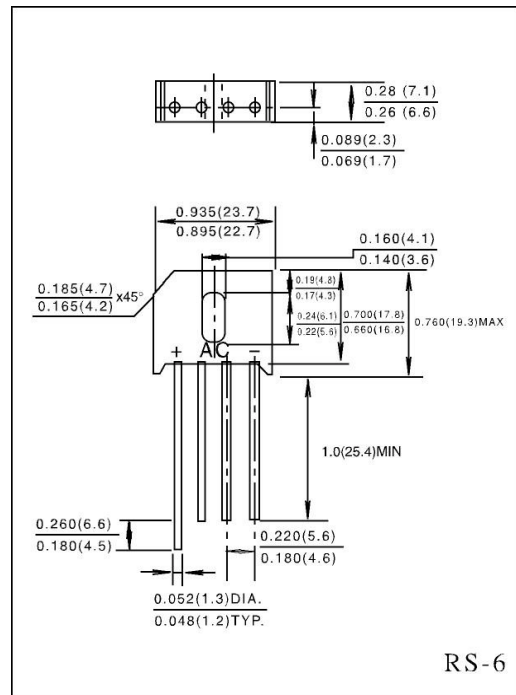
**50 to 1000 Volts
8.0 Ampere**

FEATURES

- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260°C/10 second, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Terminal: Lead solderable per MIL - STD - 202E method 208C
- Polarity: Polarity symbols marked on case.
- Mounting: Thru hole for #6 screw, 5 in,- lbs. Torqute Max.
- Weight: 0.27 ounce, 7.59 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

| | | SYMBOLS | KBU8A | KBU8B | KBU8D | KBU8G | KBU8J | KBU5K | KBU8M | UNIT | |
|--|----------------------------|-----------------|-------|-------|-------|-------|---------------|-------|-------|------------|--------------|
| 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 | $T_C = 100^\circ C$ | $I_{(AV)}$ | 8.0 | | | | | | | Amps | |
| | $T_A = 45^\circ C$ (Note3) | | 6.0 | | | | | | | | |
| Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method) | | I_{FSM} | | | | | 300 | | | | Amps |
| Rating for Fusing ($t < 8.3ms$) | | I^2t | | | | | 373 | | | | A^2s |
| Maximum Instantaneous Forward Voltage Drop per bridge element at 8.0A | | V_F | | | | | 1.0 | | | | Volts |
| Maximum DC Reverse Current at rate DC blocking voltage per element | $T_A = 25^\circ C$ | I_R | | | | | 10 | | | | μA |
| | $T_A = 100^\circ C$ | | | | | | 1.0 | | | | mA |
| Typical Junction Capacitance(Note 1) | | C_j | | | | | 200 | | | | pF |
| Typical Thermal Resistance (Note 2) | | $R_{\theta JC}$ | | | | | 5.0 | | | | $^\circ C/W$ |
| Operating Temperature Range | | T_J | | | | | (-65 to +150) | | | $^\circ C$ | |
| Storage Temperature Range | | T_{STG} | | | | | (-65 to +150) | | | | |

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 3.0" X 3.0" X 0.11" thick (7.5 X 7.5 X 0.3cm) Al. plate.
3. Unit mounted in free air, no heatsink, P.C.B. at 375" (9.5mm) lead length with 5" X 5" (12 X 12mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES KBU8A THRU KBU8M

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

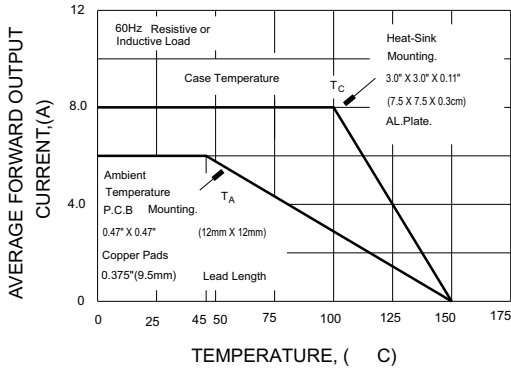


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

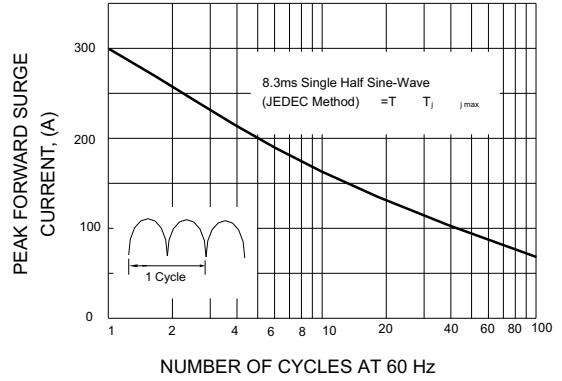


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

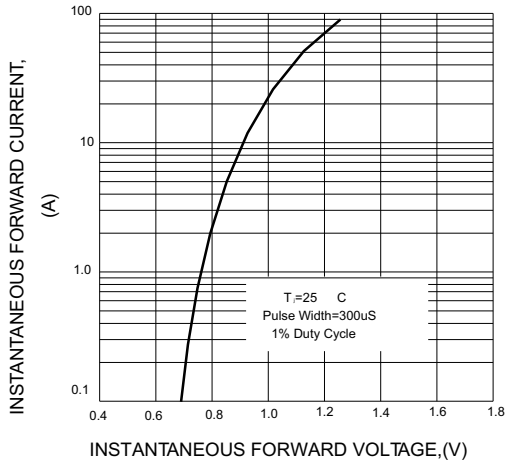


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

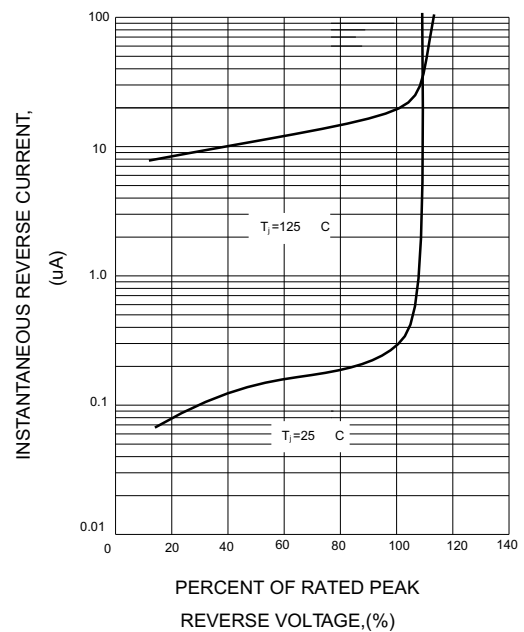


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

