

KBU1001 - KBU1007

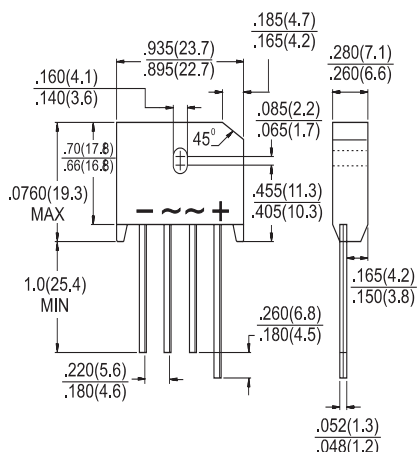
Single Phase 10 AMPS. Silicon Bridge Rectifiers

KBU



Features

- ✧ UL Recognized File # E-96005
- ✧ High surge current capability
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction technique results in inexpensive product
- ✧ High temperature soldering guaranteed: 260 °C / 10 seconds / 0.375" (9.5mm) lead length at 5 lbs., (2.3 kg) tension
- ✧ Weight: 8 grams



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | Symbol | KBU 1001 | KBU 1002 | KBU 1003 | KBU 1004 | KBU 1005 | KBU 1006 | KBU 1007 | Units |
|--|-----------------|-------------|----------|----------|----------|----------|----------|----------|--------------------|
| Maximum Recurrent 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 Current @ $T_A = 55^\circ C$ | $I_{(AV)}$ | 10 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 300 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 5.0A @ 10A | V_F | 1.0 1.1 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$ | I_R | 10 500 | | | | | | | μA μA |
| Typical Thermal Resistance (Note) | $R_{\theta JC}$ | 2.2 | | | | | | | $^\circ C/W$ |
| Operating Temperature Range | T_J | -55 to +125 | | | | | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ C$ |

Note: Thermal Resistance from Junction to Case with Device Mounted on 2" x 3" x 0.25" Al-Plate.

RATINGS AND CHARACTERISTIC CURVES (KBU1001 THRU KBU1007)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

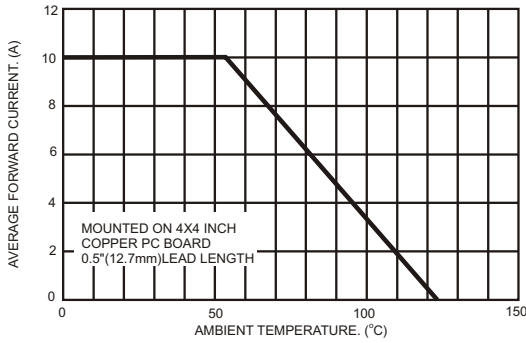


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

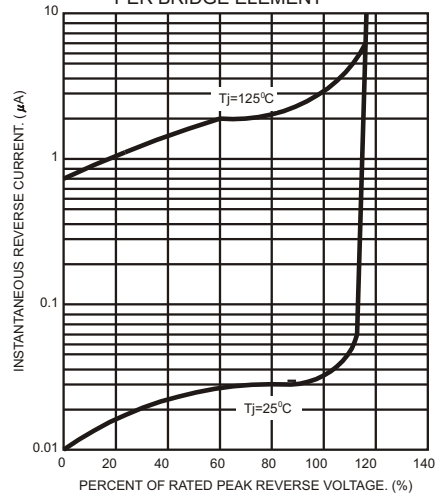


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

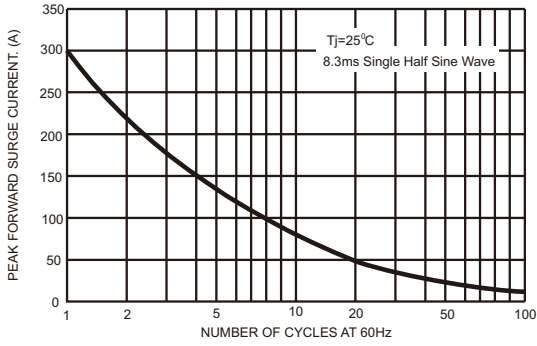


FIG.4- TYPICAL JUNCTION CAPACITANCE

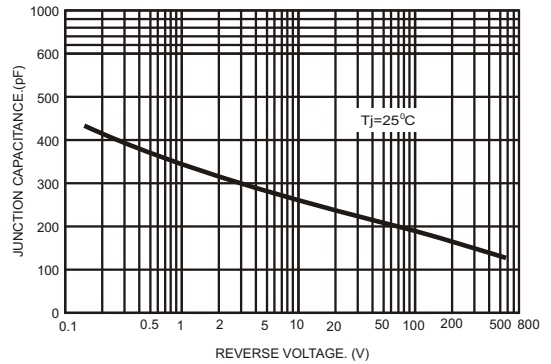
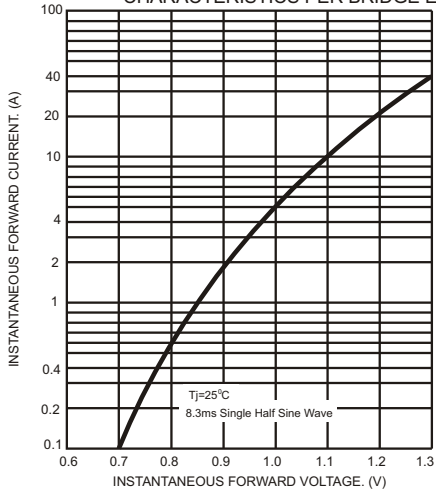


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT



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