



KBU601 THRU KBU607

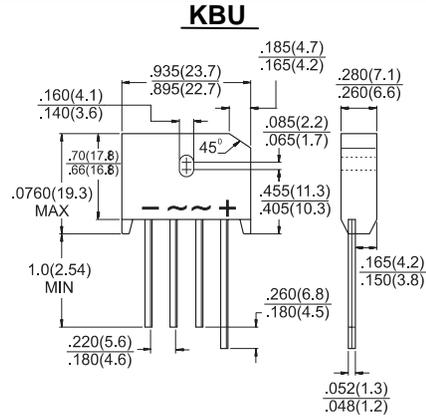
Single Phase 6.0 AMPS. Silicon Bridge Rectifiers



Voltage Range
50 to 1000 Volts
Current
6.0 Amperes

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



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 601 | KBU 602 | KBU 603 | KBU 604 | KBU 605 | KBU 606 | KBU 607 | 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 @ $T_A = 65^\circ\text{C}$ | $I_{(AV)}$ | 6.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 200 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 6.0A | V_F | 1.0 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$ | I_R | 10 500 | | | | | | | μA μA |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 8.6 | | | | | | | $^\circ\text{C/W}$ |
| (Note 2) | $R_{\theta JL}$ | 3.1 | | | | | | | |
| Operating Temperature Range | T_J | -55 to +125 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Note: 1. Thermal resistance from Junction to Ambient with units in Free Air, P.C.B. Mounted on 0.5 x 0.5" (12 x 12mm) Copper Pads, 0.375" (9.5mm) Lead Length.

2. Thermal resistance from Junction to Case with units Mounted on 2" x 3" x 0.25" Al-Plate

RATINGS AND CHARACTERISTIC CURVES (KBU601 THRU KBU607)

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

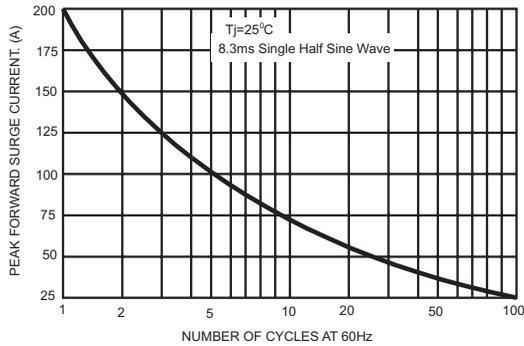


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

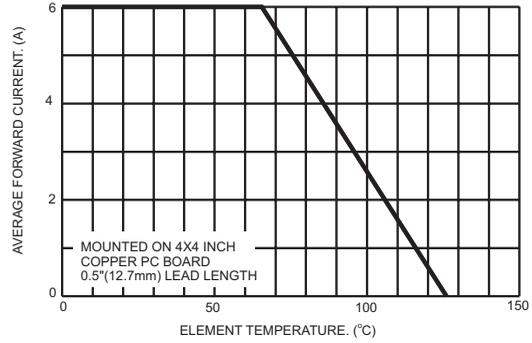


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

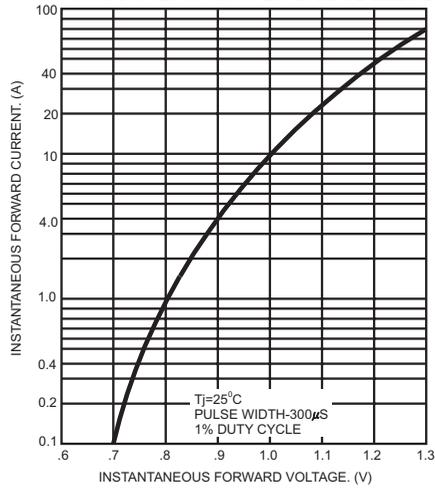


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

