## KBU6005 THRU KBU610

Single Phase 6.0 AMPS. Silicon Bridge Rectifiers<br>Voltage Range: 50 to 1000 Volts<br>Current: 6.0 Amperes

## Features

- UL Recognized File \# E-230084
- Ideal for printed circuit board
- Reliable low cost construction technique results in inexpensive product
- High temperature soldering guaranteed:
$260^{\circ} \mathrm{C} / 10$ seconds / 0.375 " ( 9.5 mm )
lead length at $5 \mathrm{lbs} .,(2.3 \mathrm{~kg}$ ) tension


## Mechanical Data

- Case: Molded plastic
- Lead: solder plated
- Polarity: As marked

KBU


091(2.3)


Dimensions in inch and (millimteres)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at $25^{\circ} \mathrm{C}$ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz , resistive or inductive load. For capacitive load, derate current by $20 \%$

| Type Number |  | $\begin{aligned} & \text { KBU } \\ & 6005 \end{aligned}$ | $\begin{aligned} & \hline \text { KBU } \\ & 601 \end{aligned}$ | $\begin{aligned} & \text { KBU } \\ & 602 \end{aligned}$ | $\begin{aligned} & \text { KBU } \\ & 604 \end{aligned}$ | $\begin{aligned} & \text { KBU } \\ & 606 \end{aligned}$ | $\begin{aligned} & \hline \text { KBU } \\ & 608 \end{aligned}$ | $\begin{aligned} & \text { KBU } \\ & 610 \end{aligned}$ | UNITS |
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| Maximum Repetitive Peak Reverse Voltage | $\mathrm{V}_{\text {RRM }}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{\text {RMS }}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking Voltage | $\mathrm{V}_{\mathrm{DC}}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current @ $T_{A}=65^{\circ} \mathrm{C}$ | I(AV) | 6.0 |  |  |  |  |  |  | A |
| Peak Forw ard Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{\text {FSM }}$ | 175 |  |  |  |  |  |  | A |
| Maximum Instantaneous Forw ard Voltage @ 6.0A | $V_{F}$ | 1.1 |  |  |  |  |  |  | V |
| Maximum DC Reverse Current @ TA $=25^{\circ} \mathrm{C}$ rated DC blocking voltage per leg TA $=125^{\circ} \mathrm{C}$ | $I_{R}$ | $\begin{gathered} 5.0 \\ 500 \\ \hline \end{gathered}$ |  |  |  |  |  |  | 11 A |
| Typical Thermal Resistance (Note1) <br> (Note2) | RӨ JA $R \ominus$ лс | $\begin{aligned} & 8.6 \\ & 3.1 \end{aligned}$ |  |  |  |  |  |  | ${ }^{\circ} \mathrm{CN}$ |
| Operating Temperature Range | TJ | -55 to +150 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | Tstg | -55 to +150 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |

NOTE : 1.Thermal Resistance from Junction to Ambient with units in Free Air, P.C.B. Mounted on $0.5 \times 0.5^{\prime \prime} \quad(12 \times 12 \mathrm{~mm})$ Copper Pads,0.375" ( 9.5 mm )Lead Length.
2. Thermal Resistance from Junction to Case with units Mounted on $2.6 \times 1.4 \times 0.06$ '" Thick $(6.5 \times 3.5 \times 0.15 \mathrm{~cm})$ Al. Plate.

FIG.1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELELMENT



FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT


FIG.2-MAXIMUM FORWARD CURRENT
 DERATING CURVE


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT


