



# KBJ401G THRU KBJ410G

## CLASS PASSIVATED SINGLE - PHASE BRIDGE RECTIFIERS



### FEATURES

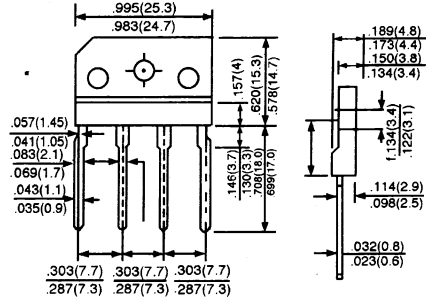
- \* Plastic Package has Underwriters Laboratory Flammability Classification 94V - 0
- \* Ideal for printed circuit boards
- \* Glass passivated chip junction
- \* High Surge Current Capability
- \* High temperature Soldering Guaranteed  
260°C/10 Seconds, 0.375(9.5mm) lead length

### MECHANICAL DATA

- \* Case: Molded plastic body over passivated junctions

Reverse Voltage 100 to 1000 Volts  
Forward Current 4.0A

# KBJ



### 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  | SYMBOLS         | KBJ 401G | KBJ 402G | KBJ 404G | KBJ 406G      | KBJ 408G | KBJ 410G | UNITS                     |
|--|-----------------|----------|----------|----------|---------------|----------|----------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 100      | 200      | 400      | 600           | 800      | 1000     | V                         |
| Maximum RMS Voltage  | $V_{RMS}$       | 70       | 140      | 280      | 420           | 560      | 700      | V                         |
| Maximum D. C Blocking Voltage  | $V_{DC}$        | 100      | 200      | 400      | 600           | 800      | 1000     | V                         |
| Maximum average forward $T_C = 100^\circ\text{C}$ (NOTE 1) rectified output current $T_A = 40^\circ\text{C}$ (NOTE 2)    | $I_{F(AV)}$     |          |          |          | 4<br>2.3      |          |          | A                         |
| Peak forward surge current 8.3ms single half sine - wave superimposed on rated load (JEDEC Method)                       | $I_{FSM}$       |          |          |          | 120           |          |          | A                         |
| Maximum instantaneous forward drop per element at 4.0A   | $V_F$           |          |          |          | 1.1           |          |          | V                         |
| Maximum DC revers current at rated $T_A = 25^\circ\text{C}$<br>DC blocking Voltage per element $T_A = 125^\circ\text{C}$ | $I_R$           |          |          |          | 5.0<br>500    |          |          | $\mu\text{A}$             |
| Typical junction capacitance (NOTE 3)  | $C_J$           |          |          |          | 45            |          |          | pF                        |
| Typical thermal resistance per leg (NOTE 1)  | $R_{\theta JC}$ |          |          |          | 5.5           |          |          | $^\circ\text{C}/\text{W}$ |
| Operation Temperate and storage temperature range  | $T_J, T_{STG}$  |          |          |          | - 65 to + 150 |          |          | $^\circ\text{C}$          |

- NOTES: 1. Unite case mounted on 2.95 x 2.95 x 0.06" (75 x 75 x 1.6mm) Cu plate heatsink  
2. Unit mounted on P. C. B 0.5 x 0.5" (12 x 12mm) copper pads and 0.375" (9.5mm) lead length  
3. Measured at 1MHz and applied reverse Voltage of 4.0 Volts

## RATINGS AND CHARACTERISTIC CURVES

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FIG. 1 – FORWARD CURRENT DERATING CURVE

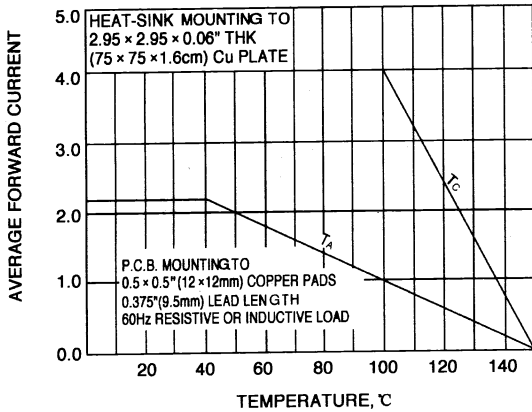


FIG. 2 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT – PER ELEMENT

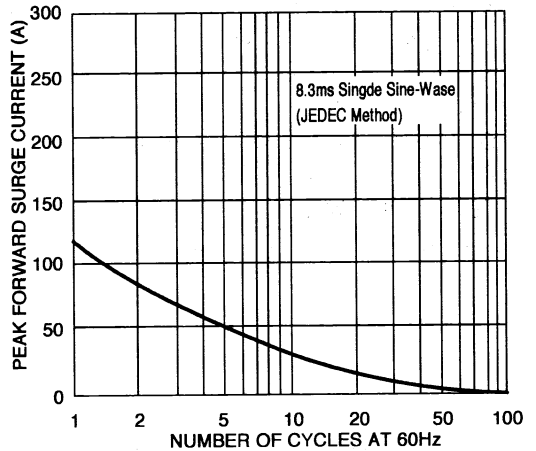


FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS – PER ELEMENT

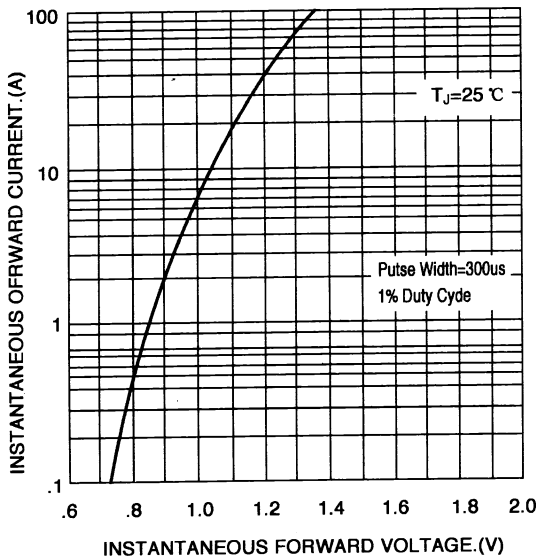


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS – PER ELEMENT

