

Zibo Seno Electronic Engineering Co., Ltd.



KBJ6005 - KBJ610

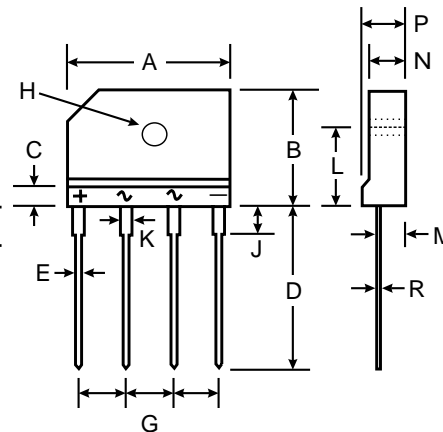
6.0A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 170A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0
- Lead Free: For RoHS / Lead Free Version

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Weight: 6.6 grams (approx)
- Marking: Type Number



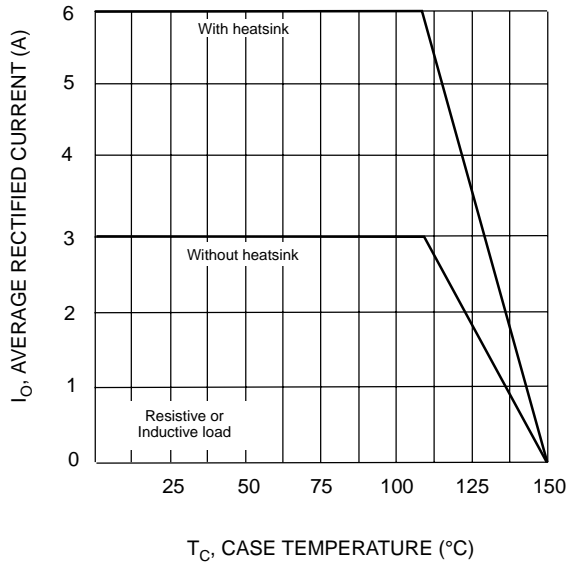
| KBJ4 | | |
|----------------------|--------------------|--------------------|
| Dim | Min | Max |
| A | 24.80 | 25.20 |
| B | 14.70 | 15.30 |
| C | 4.00 Nominal | |
| D | 17.20 | 17.80 |
| E | 0.90 | 1.10 |
| G | 7.30 | 7.70 |
| H | 3.10 \varnothing | 3.40 \varnothing |
| J | 3.30 | 3.70 |
| K | 1.50 | 1.90 |
| L | 9.30 | 9.70 |
| M | 2.50 | 2.90 |
| N | 3.40 | 3.80 |
| P | 4.40 | 4.80 |
| R | 0.60 | 0.80 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

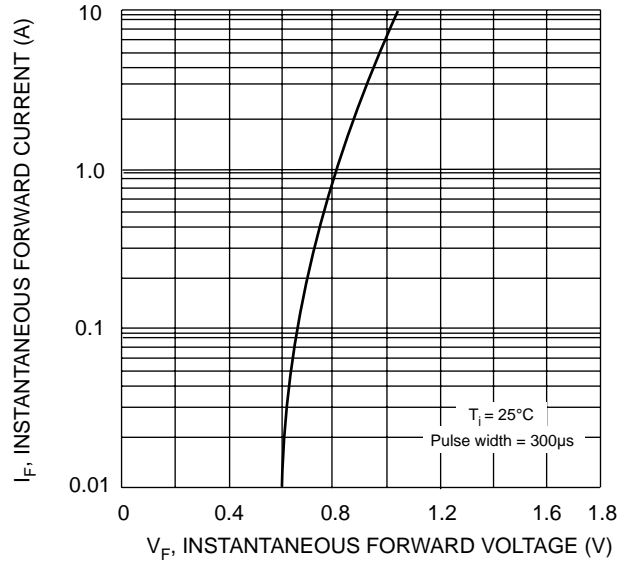
Single phase, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | KBJ 6005 | KBJ 601 | KBJ 602 | KBJ 604 | KBJ 606 | KBJ 608 | KBJ 610 | Unit |
|---|-----------------------------------|-------------|---------|---------|---------|---------|---------|---------|------------------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Forward Rectified Output Current @ T _C = 110°C | I _O | 6.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 170 | | | | | | | A |
| Forward Voltage per element @ I _F = 3.0A | V _{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 125°C | I _R | 5.0 500 | | | | | | | μA |
| I ² t Rating for Fusing (t < 8.3ms) (Note 1) | I ² t | 120 | | | | | | | A ² s |
| Typical Junction Capacitance per Element (Note 2) | C _j | 55 | | | | | | | pF |
| Typical Thermal Resistance Junction to Case (Note 3) | R _{θJC} | 1.8 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | | | °C |

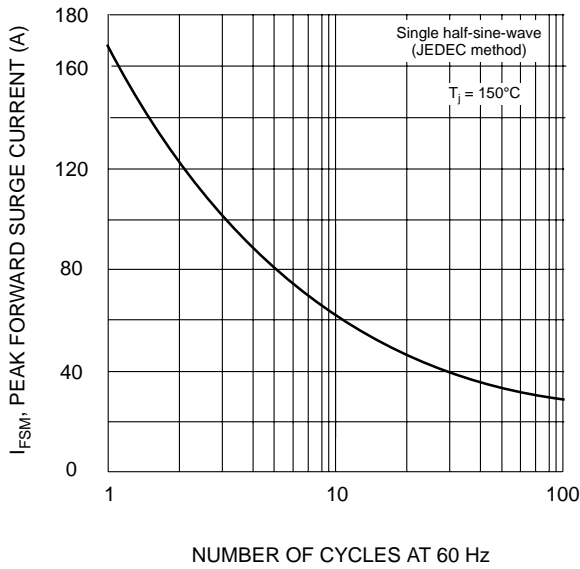
- Notes:
1. Non-repetitive, for t > 1ms and < 8.3 ms.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.



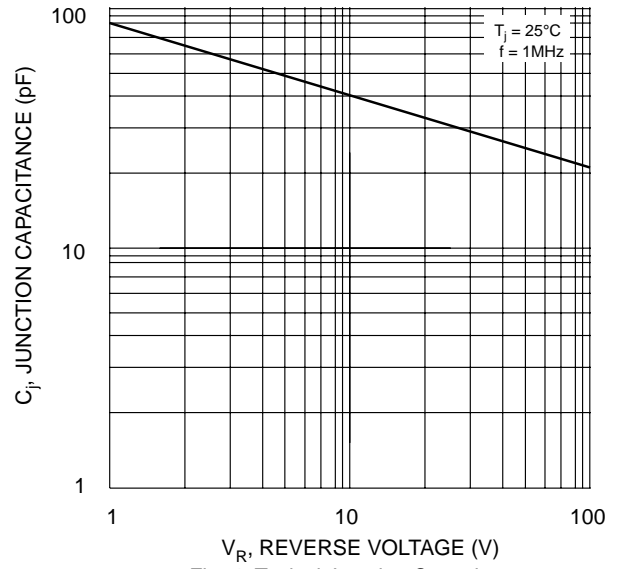
T_C , CASE TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



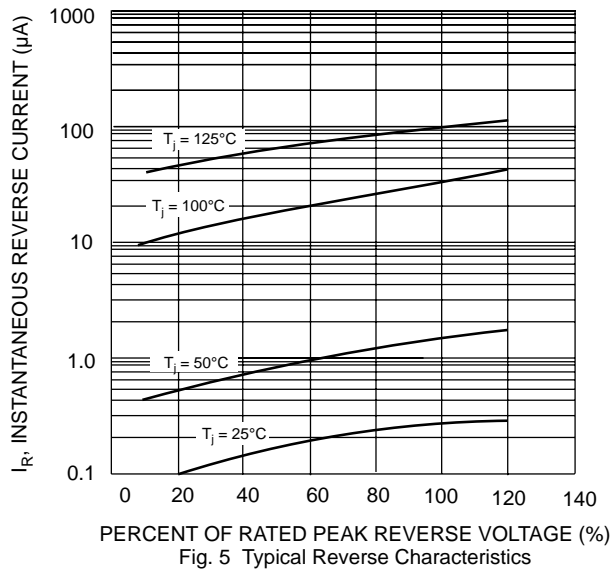
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Maximum Non-Repetitive Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics