

KBJ2006G-KBJ2008G(LS)

GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES

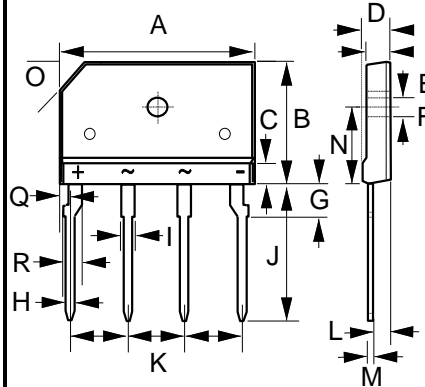
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique results in inexpensive product.
- The plastic material has UL flammability classification.
- UL recognized file # E95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: KBJ
- Polarity indicator: Symbol molded on body
- Weight: 4.69 grams (Approximate)
- Mounting position: Any

REVERSE VOLTAGE – 600 to 800 Volts
FORWARD CURRENT – 20 Amperes

KBJ



| KBJ | | |
|-----------------------------|-----------|-------|
| DIM | MIN | MAX |
| A | 24.80 | 25.20 |
| B | 14.70 | 15.30 |
| C | 3.90 | 4.10 |
| D | 4.40 | 4.80 |
| E | 3.40 | 3.80 |
| F | 3.10Ø | 3.40Ø |
| G | 3.30 | 3.70 |
| H | 0.90 | 1.10 |
| I | 1.50 | 1.90 |
| J | 17.20 | 17.80 |
| K | 7.30 | 7.70 |
| L | 2.50 | 2.90 |
| M | 0.60 | 0.80 |
| N | 9.30 | 9.70 |
| O | 3.0 x 45° | |
| Q | 1.05 | 1.45 |
| R | 1.70 | 2.10 |
| All dimension in millimeter | | |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

| PARAMETER | SYMBOL | KBJ2006G | KBJ2008G | UNIT |
|---|-----------------|-------------|----------|------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 600 | 800 | V |
| Maximum RMS Voltage | V_{RMS} | 420 | 560 | V |
| Maximum DC Blocking Voltage | V_{DC} | 600 | 800 | V |
| Average Rectified Output Current Per Device @ $T_C = 110^\circ\text{C}$ | $I_{(AV)}$ | 20 3.0 | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load @ $T_J = 25^\circ\text{C}$ | I_{FSM} | 200 | | A |
| Maximum Forward Voltage at 10.0A DC | V_F | 1.1 | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J = 25^\circ\text{C}$ @ $T_J = 125^\circ\text{C}$ | I_R | 5 500 | | A |
| I^2t Rating for Fusing ($t = 8.3\text{ms}$) | I^2t | 166 | | A ² S |
| Typical Junction Capacitance Per Element (Note 4) | C_T | 70 | | pF |
| Typical Thermal Resistance (Note 5) | $R_{\theta JC}$ | 0.8 | | °C/W |
| Mounting Torque (Recommended torque: 0.5 N.m) | TOR | 0.8 | | N.m |
| Operating and Temperature Range | T_J | -55 to +150 | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | °C |

Note:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal resistance junction to case. Device mounted on 250mm * 250mm * 20mm Alumni Plate Heatsink, $T_a = 25^\circ\text{C}$.

RATING AND CHARACTERISTIC CURVES

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FIG.1- FORWARD CURRENT DERATING CURVE

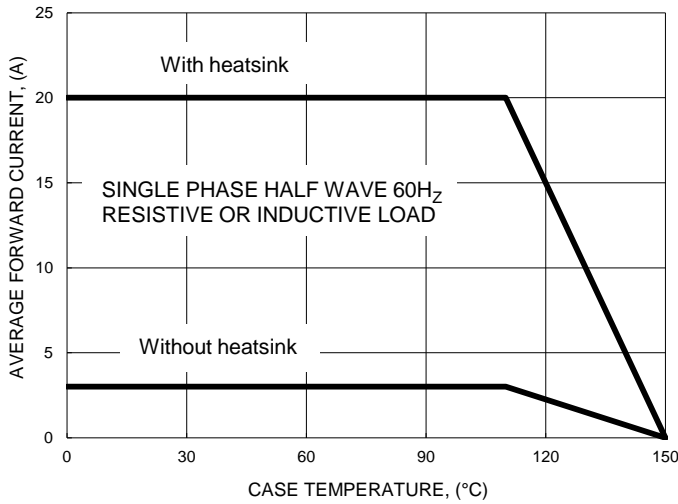


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

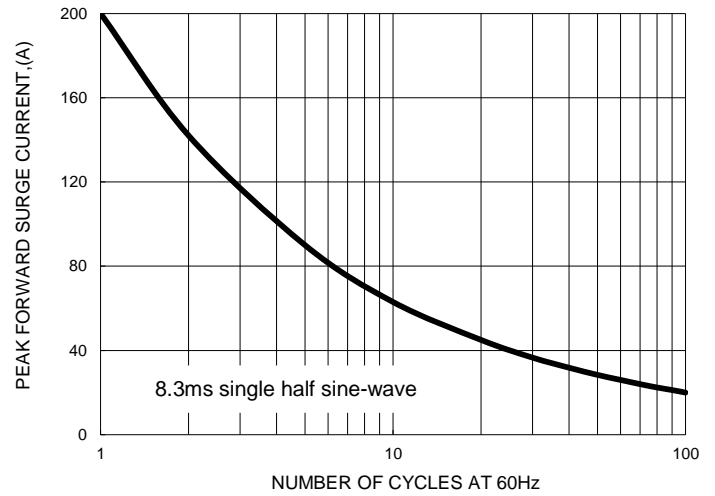


FIG.3- TYPICAL FORWARD CHARACTERISTICS

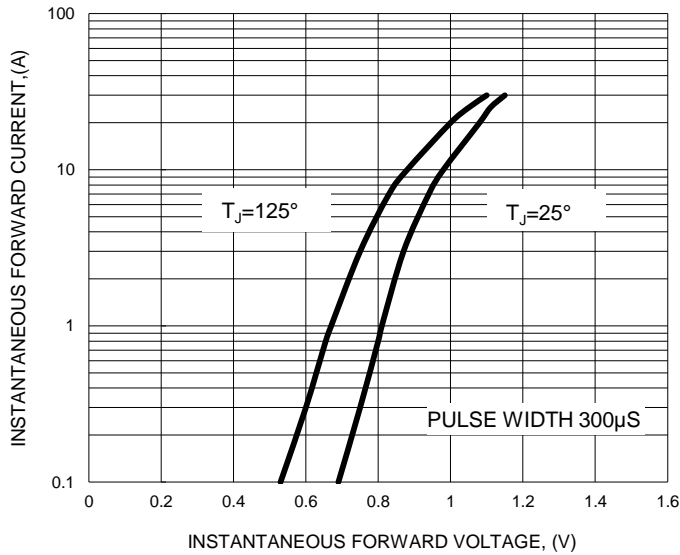


FIG.4- TYPICAL JUNCTION CAPACITANCE

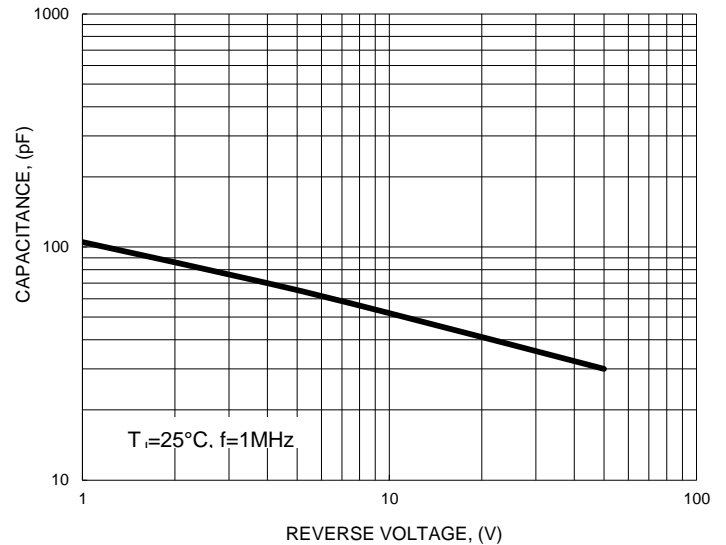
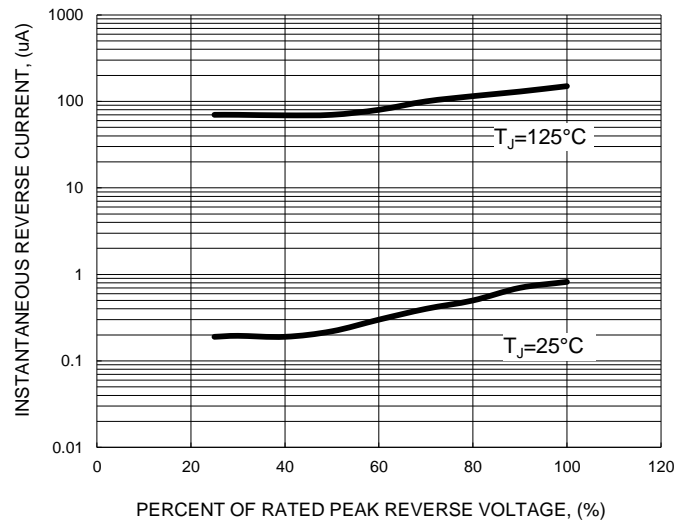


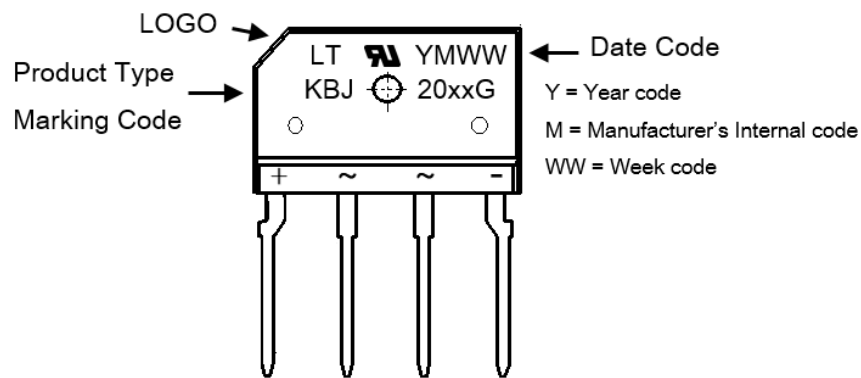
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information:

| Part Number | Package | Packing | |
|-------------|---------|---------|---------|
| | | Qty. | Carrier |
| KBJ2006G_HF | KBJ | 20pcs | Tube |
| KBJ2008G_HF | KBJ | 20pcs | Tube |

Marking Information:



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