LITE ON LITE-ON SEMICONDUCTOR

KBJ2004G thru KBJ2008G

GLASS PASSIVATED BRIDGE RECTIFIERS

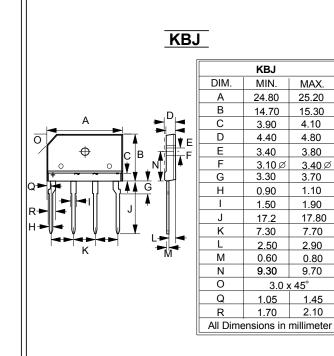
REVERSE VOLTAGE - 400 to 800 Volts FORWARD CURRENT - 20 Amperes

FEATURES

- Rating to 800V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has UL flammability classification 94V-0
- UL Recognition File # E95060

MECHANICAL DATA

- Polarity : Symbols molded on body
- Weight : 0.16 ounces, 4.6 grams
- Mounting position : Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS | SYMBOL | KBJ2004G | KBJ2006G | KBJ2008G | UNIT |
|---|------------------|-------------|----------|--------------------------|------------------|
| Maximum Recurrent Peak Reverse Voltage | Vrrm | 400 | 600 | 800 | V |
| Maximum DC Blocking Voltage | VDC | 400 | 600 | 800 | V |
| Maximum Average Forward (with heatsink Note 2) Rectified Current @Tc =110 $^{\circ}$ C (without heatsink) | | 20.0 3.0 | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | IFSM | 200 | | | A |
| Maximum forward Voltage at 10.0A DC | VF | 1.1 | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage@TJ =25°C @TJ =125°C | lr | 5 500 | | | uA |
| I ² t Rating for fusing (t < 8.3ms) | l ² t | 166 | | | A ² S |
| Typical Junction Capacitance per element (Note 1) | Сл | 70 | | | pF |
| Typical Thermal Resistance (Note 2) | Rejc | 0.8 | | | °C/W |
| Mounting Torque (Recommended torque: 0.5 N.m) | TOR | 0.8 | | | N.m |
| Operating Temperature Range | TJ | -55 to +150 | | | °C |
| Storage Temperature Range | Tstg | -55 to +150 | | | °C |
| NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC. | | | | REV. 4, Nov-2011, KBDF07 | |

2.Device mounted on 250mm x 250mm x 20mm Alumunin Plate Heatsink, Ta=25°C.

RATING AND CHARACTERISTIC CURVES KBJ2004G thru KBJ2008G

FIG.1 - FORWARD CURRENT DERATING CURVE FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT PEAK FORWARD SURGE CURRENT, (A) € 25 300 AVERAGE FORWARD CURRENT, WITH HEATSINK 20 200 15 SINGLE PHASE HALF WAVE 60Hz RESISTIVE OR INDUCTIVE LOAD 10 100 5 WITHOUT HEATSINK Single Half-Sine-Wave 0 0 100 1 50 20 40 60 80 100 120 140 2 5 10 20 CASE TEMPERATURE , (°C) NUMBER OF CYCLES AT 60Hz FIG.3 - TYPICAL JUNCTION CAPACITANCE FIG.4 - TYPICAL FORWARD CHARACTERISTICS 100 100 INSTANTANEOUS FORWARD CURRENT, (A) TJ = 125 10 CAPACITANCE, (pF) 10 TJ = 25 1 TJ = 25 ℃, f = 1MHz PULSE WIDTH 300us 1 0.1 10 100 1 0 0.4 0.8 1.2 1.6 REVERSE VOLTAGE , (V) INSTANTANEOUS FORWARD VOLTAGE, (V) FIG.5 - TYPICAL REVERSE CHARACTERISTICS 1000 INSTANTANEOUS REVERSE CURRENT, (uA) 100 TJ = 125 °C 10 1 -TJ = 25 °C 0.1 0.01 0 20 40 60 80 100 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

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